THE ARMIES OF THE WORLD

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CHARLES S. [illegible]RAM

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THE ARMIES OF THE WORLD

EXPLANATION.—Completed Lines show Railways open. Dotted Red Lines show suggested extensions.
Dotted Black Line shows one of several suggested connections between the two Russian Railway Systems.

NOTE.—The principal object of the sketch is to indicate the relative strength or weakness of Russia versus India in Asia.

The

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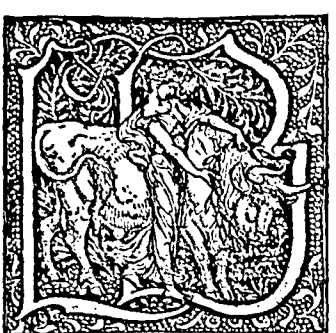
BY

CHARLES S. JERRAM



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INTRODUCTORY NOTE

TOWARDS the close of last year the writer undertook to compile a short account of the Armies of the World, such a work as might find its way to the reference shelves of libraries, and be useful to journalists and members of the general public. It was even hoped that military and naval men might occasionally make use of the book, to save consulting fuller but less accessible accounts.

The moment was favourable for such a production. The world had but lately heard, with astonished cynicism or with languid interest, the peace proposals of the Tsar. Men cried "Peace, peace," but it was as children might cry it, without scheme, or plan, or hope; meanwhile an extraordinary, almost an hysterical, wave of military enthusiasm rolled over the land. Gordon was "avenged," according to the strange phraseology of the day. The ambition of France was controlled. Yet the naval and military preparations went on, both here and on the Continent. For "'twas with arms" that every Christian Power in the world, including Russia, ushered in the Christmas, and responded to the Tsar's proposals.

England has for long been satisfied with a navy, not all-powerful, especially in *personnel*, though of great strength; but the all-embracing war question of the next century is

the future of Asia, and, as has been thought by many, and uttered by Sir Edward Grey, how should England, if the fates willed her to fight, how should she fight Russia with her fleet in the centre of Asia? No, we must have a powerful army too, and in the years to come many persons, who have hitherto taken less interest in military matters, will join with soldiers and sailors in wishing to know something about the armies of their own and other countries; hence the reason for this little work. Its aim is modest—to show at a glance the strength of the world's armies, and to give in outline methods of recruiting, equipment, and organization, with here and there, in special cases, a brief account of frontier fortifications and other matters of interest. Several of the armies are prefaced and closed by remarks on subjects of political importance affecting war.

Whilst I write this Introduction, I see side by side in the columns of the papers the reports of the first efforts made in this country to bring the Tsar's suggestion to a practical issue, and the telegraphed information of the enthusiasm created in the newest of the world's war Powers, the United States of America, over the results achieved by a dynamite gun, which "makes all clear within a radius of a hundred feet of its discharged shell."

War.

As has often been pointed out, the strategy of war has always been the same. The General desires to get as quickly as possible into the best position for striking the first, and that an effective, blow, and in all ages he has attained this end by following much the same rules. There are certain convenient methods of concentration

existing in the present, such as railways, which did not exist in the past, and there are means too of ascertaining information quickly, and of giving information quickly, such as the telegraph, which enable the Commander-in-Chief to be further away from the seat of war, than could have been the case in the days of Cæsar; but could Cæsar retūrn to lead the armies of France or Germany, his aims and objects, and the principles underlying those aims and objects, would still be those of the Gallic War. He would still get his armies into position for the fight by following the rules of the game in the past.

But if the rules of strategy have always been much the same, the rules of tactics have been more varied from time to time, and the tactics of to-day are rather different from the tactics of the Peninsular War, though not more different perhaps than the tactics of Cæsar from those of Alexander, or of the Black Prince from those of the French king. The missile weapon has gradually developed in precision, until we fight now in much looser order and at a somewhat greater distance than we fought in the Crimea or at Waterloo; but if there has been any change in the *principles* of tactics, that change was introduced by the first savage who threw a spear. In tactics then, as in strategy, the principles are still those of the past; but whilst in strategy the same principles and much the same practice have at all times been in use, in tactics practice has varied more from time to time.

It is perhaps thought very generally that (1) the battles of the future will be fought at great distances; (2) the carnage will be horrible; (3) wars will be very quickly completed; (4) the present burden of maintaining armies is heavier than it has been previously in the history of the world; (5) wars will be very troublesome to the peoples

of the countries engaged in them; yet there may be some doubt as to the answers to all these propositions.

It is doubtful whether the decisive firing position of the future will be taken up at a greater distance than from 450 to 600 yards, and with the loose order of future warfare there should be no extraordinary carnage in battles between intelligent Powers. By the courtesy of the Commander-in-Chief, I am furnished with the following information from the "*Sanitäts-Bericht über die Deutschen Heere*, 1870–71," published officially in 1886; where it is stated that 43,101 officers and men of the German Army died in hospital or on the field of battle during the war. Of this total 17,255 were killed in battle, 10,506 died in hospital of wounds, 15,340 died in hospital of disease. The total number is less than that of those said by Livy to have been killed outright at the battle of Cannae, and is not much more than four times as many as the French lost by disease in the Madagascar campaign, or the Mahdists, chiefly by rifle fire, in the battle of Omdurman. There seems indeed no sufficient reason for supposing that, with our looser formations in the present, loss in battles between intelligent Powers need be heavier than in 1870; when, however, you have such a war as has recently occurred between a reasoning Power like the United States, and an unreasoning Power like Spain, the loss on the unreasoning side should be heavy, so far as any one or two actions are concerned, and therefore the war should be sooner over, and the total loss, even in such case, not especially heavy. But between two Powers of similar intelligence there scarcely seems sufficient reason for supposing that the wars of the future will be very quickly completed, since the carnage, in land warfare at least, is not likely

to be very great. The loss from disease, under certain circumstances, must always be terribly great, though not so great probably in the future as in the past.

It may be doubted also whether the present burden of maintaining armies is so heavy as is supposed. We do not find that Germany is hindered from advance by exhaustion owing to the numbers of her armies and their support. Some, indeed, suppose that the education received in those armies more than compensates Germany for the burdens imposed upon her. In the United Kingdom, Government spends upon elementary education about £9,200,000 per annum, and private individuals spend something like £6,000,000 more, making an aggregate of £15,000,000 per annum, yet there is no particular value, so far as can be seen, in an education which does not fit the boy or girl for life in the chief industries of the country, nor much instruct the mind. It might, perhaps, be better to devote this £15,000,000 per annum to training the body, at least, and the mind in some departments, in the army, to forming a secure defence for the country, and strengthening the arms and legs of her citizens.

But apart from such considerations, are we seriously to suppose that the peoples of the present feel the burden of the taxes and service needed to support the armies of the present so severely as in the feudal times the people of the past felt the burden of personal service—service under the hardest conditions; or as the French, for instance, felt the total burden of service, taxation, and devastation during and after the wars of Louis XIV.? True, several millions of those peoples would be engaged in war should war break out, but few of them, comparatively speaking, would get killed, and in Europe few, comparatively speaking,

would die of disease, and meanwhile, the big hosts keep Europe at peace, because it is held that to loose the many dogs of war would create so great a disturbance.

This brings us to our last proposition, that wars are very troublesome to the peoples engaged in them. It is true that in the past, and to a far less extent in the present, war was and is horrible to the fighting man, and even to the persons in the immediate neighbourhood of the parts in which he is fighting; but history proves, and personal experience shows, how partial and local are the immediate effects of war. Read the *Verney Memoirs*, or read Mr. G. W. Steevens's account of the Turco-Greekish war, or M. Zola's *Débâcle*, and such records do but confirm one's own experience—my own I recollect, as a boy, in the Franco-German War—how limited and local are the effects of war. Thirty thousand Frenchmen ran away through our town, but they were very quiet, well-behaved fellows, who gave no trouble to anybody. Later on some thousands of Germans occupied the town, but it scarcely affected the everyday life of the citizen. Had the two forces met in battle in our town it would have been bad for us, but would not much have troubled our neighbours in the next town, ten miles off. We are told that on a great occasion in the future history of the world, things will go on much as usual, and so it is, especially in these humaner days, in the case of European wars. We eat and drink, and marry, and are given in marriage throughout them, and even when the flood comes it hurts fewer of us than might be expected at the time, though leaving some debts to be paid in the future.

It may be doubted, then, whether the wars of the future will be more terrible than the wars of the past, or whether the armies of Europe are doing the countries to

which they belong much mischief at present. In the matters of strategy, and even of tactics, there have been no changes in our own day more extraordinary than the changes, where any, in the past; and in the matter of expense, the expense of war does not appear to increase at a more dangerous rate than the expense of education, or than local expense, though all three, and many more, objects of expenditure are rightly eyed askance in the huge proportions which they have latterly assumed.

Addendum.

The compiler's best thanks are offered for all information, whether from printed or private sources, which is not specially acknowledged in its place, and he would be much indebted to kindly critics who would point out to him any errors which may have occurred in a book, though small, yet full of detail.

July 1899.

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THE ARMIES OF THE WORLD

THE AUSTRIAN ARMY

Population of Austria-Hungary 41,000,000

INTRODUCTORY NOTE

AUSTRIA-HUNGARY consists of the Austrian empire and the kingdom of Hungary, and is peopled by two sections of the human race of opposite types, the German and the Czech. It includes within its borders Slavs, Magyars, Italians, Turks, Bulgarians, Gipsies, Jews, etc. The loosely-constructed fabric of the State is for the present kept together by bonds of mutual convenience, and by respect for the ageing Emperor; but, in the ordinary course of things, such as things are at present, one would expect that in time to come the German part of the State would join the German empire, and the remainder perhaps form a buffer state between an enlarged German empire and Russia. However this may be, the condition of things in the dual monarchy has for some while been critical, and some form of revolution is probably only a matter of time.

CHAPTER I

WAR ADMINISTRATION AND SERVICE

THE two most important links between the various States are the permanent or common army, and the need of presenting a united front in regard to foreign affairs. The *Imperial and Royal Army*, henceforward called the permanent army, belongs to all the States. But there are besides:—The Austrian Landwehr and Landsturm; the Hungarian Landwehr and Landsturm; the local forces of Bosnia and Herzegovina. The Emperor-King is the Commander-in-Chief of all the forces, common or local, and he acts through—the common Minister of War; the Austrian Minister of National Defence; the Hungarian Minister of War. The two latter are concerned with the Landwehr and Landsturm, and recruiting of their sections, and are responsible to their National Chambers. The former is a Government Minister of the empire. He acts through the War Ministry, which is composed of sixteen sections.

The *Chief of the Staff* is an officer of much importance, under the immediate orders of the Emperor, who, however, usually communicates with him through the Ministry of War. He has charge of military works and preparations for war, mobilization, defence, railway service, communications, armament, manœuvres, instruction of staff officers, topography, etc., and his powers extend to matters which are both political and military. He acts through several offices.

Partly independent of both the Ministry of War and the Chief of the Staff are the seven *Inspectors-General* of

infantry, cavalry, artillery, engineers, pioneers, train, and remounting; also the *Technical Committee;* the *Sanitary Committee*, etc.; also the *Inspector-General* of the Army, who is responsible only to the Emperor. This officer corresponds, to some extent, to our Commander-in-Chief.

In both sections of the State there is a Commander-in-Chief of the Landwehr, who is the intermediary between the reserve forces and those charged with the defence of the country.

Liability to Service.—From the nineteenth to the end of the forty-second year all, even the clergy, are liable to service. Usually young men are enrolled in the course of their twenty-first year.

The list below gives the average annual results of the conscription.

The year's recruits	370,000
Postponed from previous years . . .	455,000
Total	825,000

Of these some 80,000 are excused, owing to infirmities, etc. About 450,000 to 570,000 are again postponed, enrolled in Landsturm, etc. Others are disposed of in various ways.

There remain about 144,000 men, disposed of, after drawing lots, in the following proportions:—

Active Army—fixed annual contingent .	101,000
Navy	2,000
Austrian Landwehr	10,000
Hungarian	12,500
Tyrolese Landwehr	1,500
Ersatz Reserve (Supplementary Reserve of the Active Army)	17,000
	144,000

Duration of service for the 101,000 men is:—

In the Active Army	3 years
In its Reserve	7 „
In the Landwehr	2 „
	12 years

The service for those not enrolled in the Active Army is also twelve years.

From the Landwehr the soldier passes to the first Landsturm for five years, and into the second Landsturm for five years. It is obligatory to belong to the Landsturm from the nineteenth to the end of the forty-second year for all not in the other services, hence the Landsturm includes a large proportion of untrained men, *e. g.* youths before they enter the army. During the seven years in the Army Reserve about three months are passed with the colours, in three periods.

Ersatz and Landwehr men are liable to an initial eight weeks' course of training. Ersatz men are also liable to the training of Army Reserve men, and the Landwehr is called out for training with increasing frequency. In war the Active Army can be recruited both from the Ersatz Reserve and the Landwehr. There are besides special periods of service for particular contingents of the united forces, in regard to which it is only possible to say that, in the case of Landwehr men, old soldiers are let off easily, while men who have not passed through the army are liable to as much as two years' training in the instructional cadres.

Under-Officers and Officers.—There are four grades of under-officer—corporal, sergeant, sergeant-major, cadet. Under-officers are not counted as combatants, nor armed with the rifle. Privates may attain all ranks up to

cadet by attention to duty, but promotion to this rank necessitates previous examination. Generally speaking cadets come from the *Schools of Cadets*, of which there are fifteen, which receive boys between the ages of fourteen and seventeen.

Cadets are promoted *officers*, according to seniority. The very important custom of the German army applies also to the Austro-Hungarian, namely, that would-be officers should be approved by the officers of the regiment which they wish to enter. Besides the cadet schools there are two higher academies. That of *Wiener-Neustadt* prepares officers by a three years' course for *Infantry* and *Cavalry;* while the Technical Academy of *Vienna* prepares, also by a three years' course, for the *Artillery* and *Engineers.* Most of the pupils of these academies come from the *Higher Military School*, which itself receives pupils from four *Preparatory Schools* for sons of impecunious officers. Pupils can enter into the academies direct by passing the entrance examination.

There are six ranks of regimental officers:—Sub-lieutenant; Lieutenant; Rittmeister, or Captain; Major—the Commander of a battalion or squadron; Lieutenant-Colonel; Colonel.

Promotion is partly by selection, partly by seniority. To become Major an examination must be passed, for which a seven months' staff-officer's course is provided. The higher ranks of officers are:—Major-General; Lieutenant-Field-Marshal; General of Cavalry; Field-Marshal—only one of this rank, the Inspector-General of the permanent army.

Retired army officers pass with their rank into the Army Reserve and Landwehr. In both services some of the inferior officers are supplied by *one-year volunteers;*

and in the *Landwehr* privates also are selected and promoted to these ranks.

The *Honved* (national Hungarian army) has for the training of its officers the Ludovica Academy at Buda-Pesth. The Honved is the name for the total Hungarian forces, independent of the contingent supplied to the combined army, and comprises Landwehr, etc.

No officers or under-officers are nominated to the *Landsturm* unless it is called out, but lists are annually prepared.

CHAPTER II

ORGANIZATION

PEACE STRENGTH.

	Officers	Other ranks	Horses	Horsed guns
Infantry — Army	9,810	186,448	1,132	
Infantry — Austrian Landwehr	1,470	20,432	144	
Infantry — Hungarian Landwehr	2,015	20,854	150	
Cavalry — Army	1,680	45,780	40,740	
Cavalry — Austrian Landwehr	170	1,861	1,282	
Cavalry — Hungarian Landwehr	340	4,170	3,510	
Field Artillery	1,465	27,451	12,443	1,048
Fortress Artillery	378	7,602	24	
Pioneers	450	8,400	15	
Railway and Telegraph Regiment	79	1,472	4	
Train	367	3,242	1,892	
Sanitary Corps	83	3,085		
Total	18,307	330,797	61,336	1,048

Total Peace Army, 350,000 officers and men.

War Strength.

	Officers and Officials	Men	Field guns.
Permanent Army and its Reserves	25,000	945,000	1792 (including Horse Artillery, 96, and mountain guns, 136)
Austrian Landwehr	6,100	265,000	
Hungarian „	5,200	209,000	
Two youngest classes of Landsturm, available as reserves for the Permanent Army and Landwehr		200,000	
Army, Landwehr, and Reserves	36,300	1,619,000	
Remainder of trained, or partially trained, Landsturm	.	720,000	
Total Military Forces	36,300	2,339,000	Field guns 1,792

Adding untrained men of the Landsturm, etc., it is probable that for a war of any continuance Austria-Hungary could provide a

Total number of officers and men, 3,000,000.

War Organization of the Empire.

For purposes of *recruiting* and *reserves* Austria-Hungary is divided into fifteen Army Corps districts, and the district of Zara:—

District	Head-quarters	Provinces
1st Army Corps	Krakau	Western Galicia, Silesia, Northern Moravia.
2nd „ „	Vienna	Lower Austria, Southern Moravia.
3rd „ „	Graz	Styria, Carinthia, Carinola, Trieste, Istria, Görz, Gradiska.

District	Head-quarters	Provinces
4th Army Corps	Budapest	Central Southern Hungary.
5th „ „	Pressburg	Western Hungary.
6th „ „	Kaschau	North-eastern Hungary.
7th „ „	Temesvar	South-eastern Hungary.
8th „ „	Prague	Bohemia.
9th „ „	Josefstadt	Bohemia.
10th „ „	Premsyl	Central Galicia.
11th „ „	Lemberg	Eastern Galicia and the Bukovina.
12th „ „	Hermanstadt	Transylvania.
13th „ „	Agram	Croatia, Slavonia.
14th „ „	Innsbruck	Tyrol, Vorarlberg, Upper Austria, Salzburg.
15th „ „	Sarajevo	Bosnia and the Herzegovina.
Zara	Zara	Dalmatia.

War Organization of the Army.

In each of the first fourteen districts there is an Army Corps, principally raised in the district. The 15th Army Corps includes the local infantry, but with this exception its troops are supplied from the other districts.

Approximate strength of Army Corps, 34,000.

The 2nd Army Corps has three Infantry Divisions. All the rest have two. Zara has three regiments. The 1st, 2nd, and 10th Corps have each one Cavalry Division. The 11th Corps has two Cavalry Divisions. The 2nd Corps has twenty-four Field Batteries. The 14th has eight. The 15th and the Zara Commands have none. All the rest have sixteen Field Batteries.

Total Infantry Divisions . . .	31
„ Cavalry „ . . .	15
„ Field Batteries	224

But there are, besides, fifty-four regiments of Landwehr infantry, and various regiments and squadrons of Army and Landwehr cavalry.

Summary of Army and Landwehr Units in the various Districts.

	Infantry			Cavalry			Field Artillery					Fortress Artillery		Pioneers		Train			Sanitary Sections
	Brigades	Regiments	Battalions	Brigades	Regiments	Battalions	Brigades	Regiments	Field Batteries	Horse "	Mountain Batteries	Regiments	Battalions	Battalions	Companies	Regiments	Divisions	Squadrons	
Total	93	164	652½	22	58½	351	14	56	224	16	14	6	18	15	75	3	15	90	26

Peace Strength of Tactical Units of Army.

Infantry Battalion :—Officers, 18; Men, 375; Horses, 2.
Cavalry Squadron :—Officers, 5; Men, 166; Horses, 149.
Field Battery :—Officers, 4; Men, 101; Horses, 43; Guns, 4.
Horse Battery :—Officers, 5; Men, 122; Horses, 110; Guns, 6.

In the Landwehr units the numbers are less, except that the Hungarian Landwehr battalion has eighteen officers. In all cases the Hungarian Landwehr has a higher peace strength than the Austrian—a fact of some little political significance. We are apt to look upon Austria as dominating Hungary, but it may be that the reverse is the case.

Mobilization.

The Active Army would probably consist of the following approximate units and numbers :—

	All ranks
15 Army Corps, usually of two Infantry Divisions	560,000
14 Landwehr Infantry Divisions	218,000
8 Cavalry Divisions	66,000
Staff and Staff troops	2,000
Total	846,000

CHAPTER III

FOOD AND FORAGE

THE man carries two days' rations, exclusive of meat, and one reserve ration. Meat is carried in meat wagons. Live stock is driven with the troops. Forage for two days and a reserve ration of oats is carried on all riding horses.

Twenty-two rations of breadstuffs and fifteen to seventeen of meat, live and dead, are supplied per man, including the regimental supply, field columns, field magazines, field bakeries, and live stock depôts. The regimental supply carries two days' rations per man, which, with the rations carried by the man himself, makes the *total regimental supply four days' rations per man.*

THE RATION.

The principal items are :—

Bread	30·8 oz.
Rice or preserved vegetables	4·9 „
Fresh beef	10·6 „
Salt	1·0 „
Tobacco	1·2 „
Rum or brandy	·1 pint
Wine	·63 „

The *Reserve Ration* comprises 17·6 oz. of biscuit, 7 oz. of preserved meat, 1·3 oz. of preserved soup, 2 oz. of salt, and 2¼ oz. of tobacco. In both rations the amount of tobacco is noticeable. The reserve ration must not be touched save by order of the General of Division, and is to be replaced immediately.

Forage.—Fifteen days' oats and eight days' hay are

carried for cavalry on the horses, and by the various sources of supply.

Forage Ration.—Riding horses have 13 lbs. of oats and 6·17 lbs. of hay. All horses have the same amount of hay; but draught horses of the train have 18·5 lbs. of oats, and other draught horses have 14·8 lbs. of oats.

CHAPTER IV

THE ACTIVE ARMY

Infantry.

Organization. — Infantry of the permanent army is divided into infantry of the line and rifles. There are 102 infantry regiments, each of which mobilizes a regimental staff, four battalions of four field companies each, and an Ersatz, or depôt battalion of four companies. In peace the Ersatz battalion is merely a cadre. There are besides four native regiments of three battalions each recruited in Bosnia and Herzegovina. The rifles consist of an Imperial regiment, and thirty battalions.

Uniform.—The *infantry* single-breasted frock is of dark blue cloth, the collar bearing patches with the regimental colour. The *rifle* frock is light grey. The *Bosnian* infantry frock is light blue. The great-coat is of a blue-grey colour.

Armament.—The arms used are the Männlicher repeating rifle and short sword-bayonet.

Equipment.—This consists of knapsack, havresack, two cartridge pouches, water-bottle, mess-tin, and cooking

utensils—one set for two men. The front rank man carries a Linneman entrenching spade; the rear rank man carries the cooking utensils. In the pouches one hundred rounds are carried.

Total weight carried—from 57 *to* 58 *lbs.*

Four pioneers per company carry between them two picks, two shovels, four hatchets, two saws. The battalion carries 396 Linneman spades, twelve picks, twelve shovels, sixteen hatchets, eight saws.

Regimental Transport.—Each company has a two-horsed ammunition wagon, carrying 9450 rounds. The battalion has eight such wagons. A regiment of four battalions has forty-eight two-horsed ammunition and food supply wagons, twelve of which are in the supply column.

Cavalry.

Organization.—There are forty-two regiments of regular cavalry, namely, fifteen Dragoon regiments, sixteen of Hussars, and eleven Uhlan regiments. In peace the regiment comprises two divisions, each of three field squadrons, and one Ersatz cadre. There has of late been some increase in the cavalry establishments. The regiment now consists of 45 *officers and officials,* 1043 *other ranks, and* 973 *horses.*

All cavalry are light cavalry. The Hungarian horses are well bred, and the cavalry of the dual army has been highly admired as a serviceable force; but it appears to be deficient in regard to Lancer regiments. Up to 1884 the Uhlans had lances, since then their armament has been similar to that of the other cavalry. Yet other armies are increasing the number of their Lancer regiments.

Uniform.—Dragoons and Uhlans wear a single-breasted tunic of light blue cloth (Hussars—light blue or dark blue). *Regiments* are shown by the colour of the collar, cuffs, or head-dress. The dolman is the same colour as the tunic, is lined with fur, and has a black astrakhan collar. The cloak is brown cloth with large triangular hood. Pantaloons and high boots (Hussars—Hessian boots) are worn.

Armament.—Slightly curved cavalry sabre and repeating Männlicher carbine.

Equipment.—The man carries a water-bottle, and two ammunition pouches. The horse carries besides the saddlery—breastplate, horse blanket, two wallets, havre-sack, bucket or cooking utensils, etc.

Estimated weight carried by horse, including the rider, 297 lbs.

Transport.—The regimental transport consists of thirty-five two-horsed wagons, including six two-horsed wagons carrying field forges.

Horse Conscription and Re-mounting.

Horses are bought at from four to five years old. There are three re-mounting depôts—in Transylvania, in Galicia, and in Hungary. The *peace effective* is 78,000 horses and mules. Officers take 10,000; cavalry 47,000; artillery 14,000; train 1800; other services 5200. The horse lasts nine years. Hence about 8000 horses are required yearly. The resources of the Empire are about three and a half millions of animals. Hungary is rich in horses. Care is taken in regard to breed, English, Arab, and Norman stallions being used. At the State stud farm at Mezö Hegyes in Hungary there are from 7000 to 8000

horses, and there are other stud farms. In all the stud branch of the military service employs 200 officers and officials, and 5500 troops and employés.

On *mobilization* 250,000 horses in all would be required, and 180,000 would be obtained by a requisition which depends on the annual horse census.

Field Artillery.

Organization.—There are fourteen *corps* artillery regiments, and forty-two independent battery *divisions.* The corps regiments have each a regimental staff, and two battery divisions of four batteries of four-horsed guns each in peace, and eight-horsed guns in war. The independent divisions consist each of a small staff, and three batteries with guns as in the corps regiments. The first twenty-eight of these divisions would be attached, one each, to each infantry division of the first fourteen corps. The other numbers are intended for the Landwehr infantry divisions.

Uniform.—The tunic is dark brown with scarlet collar. The cloak is blue-grey with scarlet facings.

Armament.—The guns are 9-cm. breech-loaders, made of Uchatius steel bronze, and are six-horsed.

Quick-firing guns.—A recent number of the *Neue Freie Press* contains the following :—

"The experiments in connection with the new quick-firing gun will be concluded during the present year. The gun will be made of improved steel-bronze, and will have a calibre of from 7·5 to 7·8 centimetres. At the same time field howitzers of a similar character will be introduced. The cost of the innovation will amount to forty million gulden, and will be distributed over several years. Provision will be made in the common Austro-Hungarian

Budget for 1900 to cover the expenditure on the preliminary experiments."

There are eight *Horse Artillery divisions*, each of two batteries, of six guns in peace and war. On mobilization these would be attached to the eight independent cavalry divisions, which would be then formed. There are also three Tyrolese *mountain* batteries.

Transport.—The transport for a field battery consists of eight six-horsed ammunition wagons, and six train wagons, carrying supplies and baggage.

Fortress Artillery.

The six fortress artillery regiments have fifteen battalions, and there are also three more *corps* battalions. The eighteen battalions mobilize four field companies and an Ersatz company each, and possibly also a Landwehr company out of Landwehr men.

The siege park consists of 400 steel-bronze rifled breech-loading guns and mortars, and includes 120 12-cm. siege guns, and 80 18-cm. siege guns, etc.

Engineers.

Technical troops consist of engineers, pioneers, and railway and telegraph troops.

The special duties of *pioneers* are pontooning, bridging, road-making, destruction of roads and bridges. Defensive works, mining, demolition on a large scale by explosions are the special work of *Engineers*. *Railway and telegraph* troops perform the work which their names signify. Von Löbell speaks only of pioneers, and mentions no unit higher than a battalion. Of these he counts fifteen battalions, which doubtless include all Engineer troops.

Uniform.—The colour of the frock is light blue.

Equipment.—The most interesting part of the equipment is that carried by the pontoon train, which, when mobilized, consists of one officer, ninety-three men, 114 horses, and nineteen four- and six-horsed wagons. Each train carries materials for a bridge fifty-eight yards long, and the battalion (eight trains) carries materials for a bridge 464 yards long.

Sanitary Troops.

The twenty-six sanitary detachments furnish on mobilization fifty-one detachments for infantry and cavalry divisions, forty field hospitals, twenty-six sanitary railway trains, with accommodation for 104 sick and wounded in each, and various reserve detachments.

An infantry division sanitary detachment numbers two officers and one hundred men.

Each infantry battalion provides one N.C.O. and twelve men as stretcher bearers.

Uniform.—The frock is dark green. All ranks wear on the left arm a white band with a red Geneva cross.

Equipment.—The equipment of stretcher bearers, etc., includes, besides the private water-bottle, a larger bottle for the use of the wounded.

Medical Staff.

This consists of—

(*a*) Military surgeons with relative army rank.

(*b*) One-year volunteer assistant surgeons, who have taken their M.D. degree, and have the relative rank of sub-lieutenant. After the year's service, these are liable to be called out as assistant surgeons during the whole period of their liability to military service.

Uniform.—Light blue frock, having a white arm-band with the red Geneva cross.

CHAPTER V

RESERVE ARMIES

LANDWEHR.

THE Landwehr consists of two parts—the "K and K" Landwehr, that is, the Landwehr of the Kaiser and King, and the "K" Landwehr, or Landwehr of the King; the former is the Austrian Landwehr, the latter the Hungarian Landwehr, or Honved.

AUSTRIAN LANDWEHR.

The *infantry* of this force consists of eighty-two battalions, bearing the names of their recruiting districts. In peace a permanent cadre only is maintained for each battalion, which in war expands, and mobilizes—a battalion staff and four field companies, a depôt company and a reserve company.

Uniform, Armament, Equipment and Transport.—The single-breasted cloth frock is light grey, with green shoulder straps.

Armament, etc., as for the permanent army infantry, with slight exceptions in the matter of transport. There are ten Tyrolese and Vorarlberg infantry Landesschützen battalions, armed, etc., as Austrian Landwehr.

Mounted Troops of the Austrian Landwehr.—There are six regiments of cavalry, and three squadrons of mounted rifles, recruited in the Tyrol, Vorarlberg, and Dalmatia respectively. In peace only the cadres of these troops exist.

The *uniform* of Tyrolese and Vorarlberg Rifles is a smart affair, including blue felt hat with eagle feather plume, etc.

Hungarian Landwehr.

Each of the seven Landwehr districts into which Hungary is divided has two Landwehr brigades. There are fourteen infantry brigades of twenty-eight regiments, each of three or four battalions and an Ersatz battalion. In peace the Ersatz battalion is merely a cadre, and the other battalions are very weak; but in peace, as in war, they are stronger than those of the Austrian Landwehr.

Uniform.—Dark blue frock with red braid on collar and cuffs, etc.

Armament and Equipment as for the permanent army infantry.

Battalion *transport*, ten wagons.

Hungarian Landwehr Cavalry.—The ten Hussar regiments, with squadrons as low as sixty-nine of all ranks in peace, mobilize each a regimental staff, six field squadrons, a depôt (Ersatz) squadron, etc. In peace, as in war, their numbers are far higher than is the case with corresponding units of Austrian Landwehr cavalry.

Uniform.—The Csako (head-dress) has a straight white horse-hair plume.

Armament, Equipment, etc., correspond to that of Hussars of the permanent army.

Regimental Transport, thirty wagons.

Landsturm.

Of this force there may be some 900,000 men, including forty squadrons of Hungarian cavalry; and of the total force perhaps 200,000 may be trained men who have passed through the army and Landwehr, the rest are trained "more or less." The infantry of the Austrian

Landsturm is organized in ninety-two mobile battalions, and perhaps 120 territorial battalions. The Hungarian Landsturm infantry comprises ninety-two mobile battalions and ninety-two territorial battalions.

Uniform is, with slight exceptions in the case of the Hungarian force, similar to that of the Landwehr, and, when no uniform is obtainable, civilian dress is worn, with a black and yellow band on the left arm for Austrian Landsturm, and a red, white, and green band on the left arm for Hungarian Landsturm.

CHAPTER VI

THE MARCH

THE usual pace is the quick march of 115 paces to the minute. The length of the pace (29·53 inches) is about the same as that of English infantry. At the double 160 paces per minute are taken. At the usual pace *Infantry* marches about three and one-third miles an hour; in long marches two and three-quarter miles. *Field Artillery* walk at three and a half to three and two-third miles an hour. *Cavalry* and *Horse Artillery* walk at nearly four miles an hour, and trot at eight and a half miles an hour. The gallop is fourteen miles to the hour, and cavalry should be able to keep it up for from 2000 to 3000 yards. Trotting and walking alternately, cavalry should be able to cover long distances at six miles the hour. The average march for large forces is 9·3 miles a day. The forced march for *infantry* and *train* is

twenty-eight and a quarter miles a day, and for cavalry thirty-seven to forty-two miles.

Infantry and cavalry usually march in fours. The Army Corps of two infantry divisions with train has a depth of formation of from 38,000 to 42,000 yards. The *infantry division* marches in the following order :—

Advanced party, half company.

Interval of 600 to 1000 paces.

Vanguard, three and a half companies.

Interval of 1000 to 2000 paces.

Main body of advanced guard, one or two battalions ; artillery and cavalry according to circumstances.

Interval of 2500 paces.

Main body.

Interval of 100 paces.

Rear-guard, half company.

In retreat the rear-guards correspond to the above advanced guards, but are strong in artillery. In advance or retreat flanking detachments of cavalry are thrown out where practicable.

Bivouacs.

Infantry.—Front of regiment of three battalions, 394 paces.

Cavalry.—Front of cavalry regiment, 700 paces.

Artillery.—Front of battery, 100 paces.

A brigade of infantry is the largest unit which is usually permitted to bivouac in one place.

Train wagons are laagered if there is danger of attack.

Outposts.

Battalions are guarded by pickets. Brigades have pickets and supports. Divisions and Army Corps have

also an outpost *reserve;* the best position for such reserve being at the junction of several lines of approach. The pickets, the outer guard of observation, are in the case of a Division or Army Corps as far as 6000 to 7000 paces in advance of the main body.

The *password* is as simple as possible. The *Countersign* is the name of a town. The *parole* is in a sealed envelope, given only to trusty persons, and used when bringing orders from superior authority, to guarantee their genuineness. Countersign and parole used on the same day begin with the same letter.

CHAPTER VII

TACTICS

Infantry.—The real attack is usually on one flank, the frontal attack being merely to hold the enemy. The regiment is formed in firing line and reserves. The firing line is 1000 to 1100 paces beyond the regimental reserve. Between are the company reserves and battalion reserves. The advance in the firing line is usually by rushes of from 60 to 80 paces, advantage being taken of cover. Troops in the fighting line can only advance and retire. Changes of front can only be effected by troops in reserve.

There is little infantry fire beyond 1000 paces, or less; for infantry should as a rule be able to see distinctly the object aimed at. As in the advance infantry comes under artillery fire, deep formations are broken up and extended formation is assumed, the sections of the firing line becoming a line of groups at medium infantry range—500 to 1000 paces. At 500 paces the attack proper is

delivered, infantry and artillery pouring in an overwhelming fire, and reserves come up to the assault position, the whole force advances, magazine fire is opened, and, the final position having been reached, the whole body of infantry charges with fixed bayonets. Until this position is reached, the firing line does not fix bayonets.

In the present controversy in regard to the decisive firing position, it is worth noticing that Austria puts it at 500 paces, Russia at from 400 to 500 paces, Holland at over 700 paces, etc.

Cavalry usually attack at right angles to a front, or obliquely against a flank. Bodies consisting of a brigade and upwards attack in three *échelons*, the first containing from one-third to one-half of the force attacking. The first *échelon* attacks the obvious opposing force; the second *échelon* advances on its flank, some 300 paces in the rear, and attacks supports and reserves; the third *échelon* completes the victory, or covers the retreat. Attack on the guns of artillery is always in extended order.

The order to attack is given at 1000 paces. The line advances at a trot, then breaks into a canter, and the charge is sounded at about eighty paces from the enemy.

Artillery attack artillery at the commencement of a battle, subsequently infantry, then the reserves. Artillery may fire over the heads of their own troops, so long as opposing forces can be clearly distinguished. Accuracy of fire is held to be of more importance than rapidity. Range is usually found and corrected by means of the gun. During the last stages of attack fire is as rapid as possible.

CHAPTER VIII

FORTRESSES

THE fortresses include the following :—

In Galicia, *Krakau* and *Premsyl*, large modern entrenched camps.

Upon the Maros, a left bank affluent of the Theiss, *Karlsburg* and *Arad.*

In Slavonia, on the northern borders of Bosnia, *Brod* and *Gradiska;* also *Essek*, and *Peterwardein* on the Drave.

In Dalmatia, *Cattaro* on the Adriatic.

In Istria, *Pola*, a maritime fortress of the Adriatic, protecting the naval dockyard and arsenal.

In the Tyrol, *Trent*, on the Adige, a support to the fortifications of the Alps, the passages of which are themselves guarded by various works and fortifications, many of them, however, of not much present military value. Also *Franzensfeste.*

In Hungary on the Danube, about 100 miles south-east of Vienna, is *Komorn.*

The capital, Vienna, is not fortified. There are some works which were erected at the time of the war in 1866, at Florisdorf, which afford it some protection, and guard the bridge over the Danube at that place. Florisdorf is a suburb of Vienna about four miles distance by rail.

It is worth while noticing, that though several of the above fortresses are on the borders of the dual empire, several again are some distance towards the interior, especially in the case of Hungary. This is doubtless due to

the dual nature of the State. Such fortresses might be of use in any internal war, consequent upon rupture between the two States.

CHAPTER IX

GENERAL

Badges of Rank, etc.

Rank is shown by stars and lace on the collar of the frock.

Non-commissioned officers have one or more white cloth stars, according to rank.

Sub-lieutenant—one star, gold or silver.
Lieutenant—two stars, gold or silver.
Captain—three stars, gold or silver.
Major—one star and broad gold lace.
Lieut.-colonel—two stars, and broad gold lace.
Major-general—one silver star and broad gold lace.
Lieut.-general—two silver stars and broad gold lace.
General—three silver stars and broad gold lace.
Field-marshal—gold lace with leaves.

Budget.

The Austro-Hungarian budget is a complicated affair, owing to the dual nature of the State. The revenue and expenditure of Austria are each some £18,000,000 more than those of Hungary. Including all parts of the dual State, we may estimate the

Total Revenue at £101,000,000.
Total Army Expenditure £15,000,000.
that is, about 15 per cent. of the whole revenue.

Political Influence of the Army.

The language of the "common" army is German, and German is the language of the Austrian Landwehr and Landsturm. Hungarian is the language of the Hungarian Landwehr and Landsturm, but words of command are given in German. Though Hungarian is the official language of Hungary, many of the people do not talk it amongst themselves, and public notices are sometimes published in as many as four languages. About eleven languages and dialects are spoken in the dual monarchy. Here in the centre of Europe are gathered together remnants of ancient decayed states and bits of living ones, a conglomeration held together more perhaps by the united army than in any other way. The army provides a common interest, and, to some extent, a common life for young soldiers of different habits and races, and when they retire from active service they bear with them to their particular fragments of the State some notions of general imperial defence and union.

This is so; but the same army and empire which, doubtless, would be united against most common foes, are weak internally, owing to racial division. Should there be internal dissension at any time, it is probable that the Hungarian soldier would think first of Hungary, and the Austrian soldier would think first of Austria, and in such case the armies of Austria-Hungary would be a source of imperial weakness, and perhaps the most potent factor in imperial disruption.

THE BELGIAN ARMY

Population of Belgium . . . 6,069,000

Liability to service.—Personal service is not yet obligatory, though for some while past the intention has been to make it so. Some time during the twentieth year the young Belgians draw lots for service. Out of a number of 45,000 annually liable about 13,000 are taken. Substitutes are allowed, but at a somewhat prohibitive price, about £60. Service is for eight years, but actually, in usual times, for from twenty-eight months for infantry to four years for cavalry and field artillery; a month's annual leave is also allowed.

Organization.—In peace there are four *Infantry* divisions, consisting of nineteen regiments, most of them of three active and two reserve battalions. The divisions have their head-quarters at Ghent, Antwerp, Liège and Brussels respectively. The two *Cavalry* divisions are placed at Brussels and Ghent. They comprise eight regiments of forty active and eight depôt squadrons. The two brigades of *Field Artillery* are also at Brussels and Ghent. They comprise thirty active and eighteen other batteries. There are besides two brigades of *Fortress Artillery* at Antwerp and Namur respectively, with fifty-eight active and twelve other batteries. There is a regiment of *Engineers* at Antwerp, consisting of three active and one

reserve battalions; from this strength it supplies companies for Liège and Namur. The head-quarters of the *Train* is at Antwerp. The train consists of seven companies; of these the 3rd is at the Beverloo camp, the 4th and part of the 7th at Brussels, the remainder of the 7th at Liège.

In war there are four *Army Divisions*, each comprising four regiments (of twelve battalions and a carabinier battalion), two squadrons, eight field batteries, one company of engineers, one train company, four ammunition columns, two supply columns, etc.

PEACE STRENGTH.

	Officers	Men	Horses	Guns
Infantry . . .	1,745	28,050	254	
Cavalry . . .	304	5,760	5,528	
Artillery . . .	534	8,214	2,582	204
Train . . .	29	455	331	
Engineers . . .	146	1,703	39	
Staff, Administrative and Sanitary Services	602	994	306	
Total . . .	3360	45,176	9040	204

Total peace strength in officers and men, 48,500.

WAR STRENGTH.

In war the infantry recruits from thirteen classes of reserve, and amounts in all to about 108,000. Cavalry receives 3,400 men; artillery receives 18,000; engineers receive 4,500.

Total estimated war strength, 145,000.

The above total is exclusive of 2500 gendarmerie, and of other auxiliary forces which may number 10,000.

In case of need Government can recall to the flag as many classes of men who have served as is held desirable, commencing with the youngest class.

Military districts of the kingdom.—Belgium is divided into four military districts, having as their head-quarters Ghent, Antwerp, Liège and Brussels, the four towns where the infantry divisions are located. These serve for purposes of recruiting and reserves.

Defence.

In 1858 Belgium adopted Antwerp as the base of her defensive system, and the pivot of her active army. From that date until 1888 defensive works were undertaken in the neighbourhood of this city. In 1888 attention was attracted to the line of the Meuse, as a protection, it is to be presumed, against the advance of Germany; hence Liège and Namur have been fortified after the modern system.

General.

Budget. — Revenue, £15,524,000. Expenditure, £15,498,000. Debt, £92,500,000. *War Budget*, £1,936,255.

The infantry is armed with the magazine rifle, and wears a dark grey uniform. The army is not in a very satisfactory state, the reserve cadres of the active army being very weak. In this connection it is worth while noticing, that while by the Conventions of 1831 the *perpetual neutrality* of Belgium is guaranteed, these conventions state that such neutrality would be of little

use to the neighbouring states if the kingdom fails in the military force to make it respected. Standing as she does as a buffer State across one of the most important strategic roads in Europe, it is probably the interest of the great powers concerned to maintain Belgium in that position, in order to prevent their boundaries becoming conterminous; but her wealth and sea-coast must be tempting; and besides, in case of war between Germany and France, it is considered probable that, with the enormous armies which would be brought into the field, use would be made of Belgian territory, since the available conterminous frontier of those states would not afford space enough for the efficient employment of the vast hosts concerned.

THE BRAZILIAN ARMY

Population 17,500,000

Recruiting is partly voluntary, partly by ballot. Each State and federal district is supposed to supply a certain proportion of its population.

Peace organization.—Infantry, forty battalions; Cavalry, sixteen regiments; Transport, one corps; Field Artillery, five regiments; Artillery of position, five batteries; Engineers, three battalions.

Peace strength.—27,000, including 2000 commissioned officers.

War strength, very doubtful. Perhaps 50,000 to start with, since the organization admits of the doubling of the peace strength; but doubtless in a protracted war these numbers would be far exceeded by fighting men of one sort or another.

THE BULGARIAN ARMY

Population . . . . . about 3,300,000

THERE are 2,600,000 Christians, 600,000 Mohammedans, and 28,000 Jews. The Mohammedans live chiefly in the northern and eastern provinces. Their numbers are decreasing, but the whole population is increasing. Mohammedans can claim exemption from military service on payment of a fine of £20, which few can afford to pay. Military service is popular.

Service, etc.—Every man is supposed to serve two years in the active army and eight years in its reserve; but cavalry, artillery, engineers, and the Medical Corps serve three years in the active army and six years in its reserve. All arms serve seven years in the reserve army, a force distinct from the reserve of the active army, and pass into the militia, which is divided into two bans; the infantry serve four years in each, other arms serve four years in the first ban, five years in the second.

In peace the recruit enters the army on completing his twentieth year, in war on completing his eighteenth year. He is available up to his forty-fifth year.

Organization (*Military Districts*).—Bulgaria is divided into six districts, each of which would in time of war supply a division to the active army and another to the reserve. Infantry is recruited territorially, other arms throughout the country.

Peace strength.—In peace there are in Bulgaria and East Roumelia 234 companies of infantry, twenty-three squadrons of cavalry, forty-five batteries of field artillery, and five of fortress artillery, six train companies, six medical companies, about twenty-five companies of the pioneer brigade; amounting in all to 2600 officers, 42,000 men, and 7600 horses.

War strength.—The war strength of the active army and its reserves is put at a doubtful 270,000 men and 624 guns.

Uniform and Armament.—Dark green tunic and pantaloons. Artillery have dark blue pantaloons. Officers wear metal or silver shoulder-straps, with distinctive marks on epaulettes or shoulder-straps. The armament is the Männlicher magazine rifle and short bayonet for infantry, the Männlicher magazine carbine and sabre for cavalry. The guns are twelve-pounder and seven-pounder Krupps.

Budget. — Revenue, £3,382,000. Expenditure, £3,379,000. Debt, £7,600,000. Army Expenditure, £934,000.

THE CHILIAN ARMY

Population 3,317,000

Peace strength of Army, 6000 men; of National Guard, 50,000 men.

Organization.—Infantry, seven regiments. Cavalry, four regiments. Artillery, three regiments. Engineers, one corps.

THE CHINESE ARMY

Population of the Chinese Empire, approximately 400,000,000
Population of China proper, approximately . 386,000,000

THE Chinese Empire is about to share the fate of Africa. The present writer does not hold any illusions in regard to the reasons for such fate. He does not believe that any country takes possession of parts of Africa or Asia in order to do the people in those places good, though good may occasionally result incidentally. England and Russia advance in Asia because having once started they cannot stop.

To attempt any estimate of the forces of China is impracticable. The *Black Flags*, formed on the nucleus of Gordon's Taiping army, and trained by European officers, may, at their best, have numbered 50,000 men. Beyond this it is unsafe to go. But English officers of distinction believe that the Chinese soldier when trained will make an efficient fighter, and perhaps the best hope for the continued existence of the Chinese Empire consists in the possibility of China allowing some part of her forces to be trained by Anglo-Indian officers, seeing that England does not at present covet territory, only commerce, in that part of the world. Territory, however, must come, for several reasons, and the Convention as to railway spheres lately announced between the two great European powers of the East is probably the beginning of the end—yet an end which may be far distant.

THE DANISH ARMY

Population 2,300,000

Service is obligatory. From the age of twenty-two able-bodied men serve eight years with the colours, and, nominally, eight years in the Reserves, in reality perhaps six years, such service not being very onerous.

The annual contingent trained numbers about 7900.

Organization.—There are two Generals' commands, namely, Copenhagen in Zealand, and Aarhuus in Jutland.

	Infantry		Cavalry	Field Artillery
	Brigades	Regiments	Regiments	Regiments
Copenhagen	2	4	2	1½
Aarhuus .	3	6	3	½
Total .	5	10	5	2

The total number of infantry battalions is thirty-one, of cavalry squadrons sixteen, of field artillery batteries twelve. There are also in the Copenhagen district one regiment of fortress artillery of three battalions, and one regiment of Engineers of six companies.

War Organization of smaller units.—In war the battalion has twenty-one officers and 1050 men; the squadron has six officers, 150 men, and 190 horses; the battery has five officers, 200 men, 200 horses, and eight guns.

PEACE STRENGTH.

	Officers	Other ranks
Infantry	533	8450
Cavalry	90	1300
Field Artillery . .	68	1000
Fortress and other Artillery	97	1600
Engineers . . .	46	550
	834	12,900
Total peace strength		13,734

WAR STRENGTH.

	Officers	Other ranks
Infantry	809	36,500
Cavalry	122	2,650
Artillery and Train . .	288	9,000
Engineers . . .	82	1,700
	1301	49,850

There should also be ninety-six horsed guns, and about 5000 horses. The extra reserve should provide 260 officers, about 1600 men, about 1000 horses, and thirty-two horsed guns.

Total war strength, 53,000.

Budget.—State revenue, £3,741,000. State expenditure, £4,137,000. State debt, £11,579,000. Army expenditure, £650,000.

THE EGYPTIAN ARMY

Population . . . . . about 9,750,000

AMONGST the results of British endeavour, few have been more successful than the reformation in sixteen years of Egypt and the Egyptian army, by such men as Lord Cromer, Sir Evelyn Wood, Sir F. Grenfell and Lord Kitchener.

Service.—All males are liable, for six years in the army, five in the police, and four in the reserve. There is no difficulty in getting recruits of fine physique, since out of 10,000,000 to choose from only 20,000, including the railway battalions, are required.

Organization.—Infantry, eighteen battalions; cavalry, ten squadrons; horse artillery, one battery; field artillery, four batteries.

There is a Camel corps, 800 strong, half black, half fellah, with five white officers. Arm, the Martini-Henry rifle and bayonet.

The *Infantry* battalions include six of Soudanese blacks. Each battalion, black or Egyptian, is divided into six companies between 100 and 120 strong. Normal strength of battalion, 759. Normal number of white officers, three to an Egyptian, four to a Soudanese battalion, but more

in war. *Infantry arm*, the Martini-Henry rifle and bayonet.

The *Cavalry* are all Egyptian. Horses strong and hardy, about thirteen hands. Strength of squadron about 100, the front rank carrying lance as well as sabre and Martini carbine. Seven squadron leaders are English.

Each *Battery* has a white commander. Arms, Maxim-Nordenfeldt quick-firing nine-pounders, twelve-pounder Krupps, nine-pounders, etc. The artillery men are Egyptians.

Native officers are largely Turkish, Circassian, and Albanian. "Each battalion has as instructor a British non-commissioned officer; he drills it, teaches it to shoot, makes soldiers of it."

Strength of army, about 18,000.

Uniform for all arms—brown jersey, sand-coloured trousers, dark-blue putties, tarbush with cover hanging over nape of neck for Egyptians.

General.—Mr. G. W. Steevens says with justice, that the Soudan military railway is the weapon which smashed the Kalifa, and no less an authority than the Prime Minister adds his testimony to the same effect.[1] From Wady Halfa to the Atbara is about 400 miles, and without the railway to that point the campaign could hardly have taken place. In assigning credit for the late successful campaign, a high place should be given to the Director of Railways, Bimbashi Girouard, a Royal Engineer subaltern of Canadian extraction, with a salary of £2000 a year.

The total force under the Sirdar's command for the Atbara campaign was from 12,000 to 13,000, with 52

[1] "By a tremendous effort of railway creation we have recently conquered Egypt."—LORD SALISBURY.

guns; including a British brigade of four battalions, and a Maxim battery of six guns, numbering in all about 3500 British troops. The enemy's loss was about 3000 killed in the battle, chiefly by rifle fire, many more dying afterwards of wounds. Our loss was 81 killed and 493 wounded.

The Omdurman force consisted of two *Infantry* divisions, one British, one Egyptian. Approximate numbers respectively 7500 and 12,000. *Cavalry*, 1500, including 500 of the 21st Lancers. *Guns*, forty-four, including howitzer battery, two siege guns, and British Maxim battery, all field guns being nine-pounder Maxim-Nordenfeldts. *Camel corps*, 800. Total land forces over 22,000. The gunboats carried 12½-pounder quick-firing Maxim-Nordenfeldts, and Maxims.

The enemy's loss was estimated at 11,000 killed outright, largely by British Lee-Metford volley fire, 16,000 wounded —a frightful butcher's bill. There were also 4000 prisoners. The total Dervish force numbered perhaps 50,000. It is needless to speak of their magnificent courage. Our loss was British, 56 killed, 150 wounded; Egyptians, 35 killed, 300 wounded. Correspondents as usual suffered heavily, one killed, one died of fever, one wounded.

British troops in Egypt have now reverted to their numbers before the late campaigns, a total of about 4300. See under head British Army, Chapter II, "Proposed Distribution of Regimental Establishments."

Finance.—The estimated *Soudan* revenue for the current year is E. £51,500; Expenditure, E. £383,272; leaving a deficit of E. £331,772.

Beneath is given Lord Cromer's financial report, April 1899, of the cost of the whole series of operations from

the spring of 1896, when it was decided to move forward from Wadi Halfa to Dongola, up to the present time.

	Railways	Telegraphs	Gunboats	Military Expenditure	Total
	£ E.	£ E.	£ E.	£ E.	£ E.
Dongola campaign	181,851	8,299	65,869	469,622	725,641
Subsequent military operations	699,521	13,526	89,065	526,601	1,328,713
Khartoum Railway Extension . .	300,000				300,000
Total . .	1,181,372	21,825	154,934	996,223	2,354,354

The *surplus* on the total Egyptian accounts is E. £484,000.

THE ENGLISH ARMY

INTRODUCTORY NOTE

Population of the United Kingdom .	39,826,000
Population of the British Empire . .	400,000,000

THE Army of the Queen has peculiarities. It is scattered all over the world in the scattered portions of our extraordinary empire. Alone amongst important armies it is a volunteer force. One great and increasingly important section of our forces is recruited from fellow subjects of another race and colour. But besides these exceptional characteristics, the British is the only army which has much serious practice in war, and it is the only long-service army of importance in the world. This latter statement may sound strange, but compared with the service of the great continental armies, our short service is a very genuine long service, though it is to be remembered that our recruits are younger than is usually the case in other countries.

The fact that the English officer, at least, has during the course of his career many more opportunities of war service than is the case with his continental brother, should render him a more efficient officer, and the same should be true, though to a less extent, of the British private, who frequently has opportunities of war service during

his career in the active army. It is true that the conditions of warfare under which our troops engage in India or the Soudan are not, so far as actual fighting is concerned, exactly the conditions which would obtain in European warfare, but the experience gained in that by which wars are won—strategy, tactics, commissariat, transport, supply—should be of inestimable value to our soldiers. Again, no war can be carried through successfully without the exhibition of an alert intelligence and the utmost daring, and these qualifications for the soldier's profession have exceptional opportunities of exercise in the constant little wars upon our Indian frontier, and, though to a less extent, in the late wars in Egypt. Besides, if ever there were opportunities for good shots to distinguish themselves, such opportunities have been present in the mountain warfare of India.

The martial spirit of our country has been roused to the highest pitch by the late conspicuous successes in the Soudan. Yet it may be doubted whether we even now fully appreciate the fact, that the victory of Omdurman was but the "crowning glory" of the long laborious toil of men such as Lord Cromer and Sir F. W. Grenfell, who made Egypt and her army, and of those who laboured night and day, year in and year out, upon that strategic railway line, which enabled the Sirdar to plant in the fulness of time the seriously damaging though not altogether destructive blow of Omdurman.

Amongst the dangers which confront our army one is special to it. Mr. Morley lately expressed the views of some thoughtful persons, when he pointed out the risks incurred by States in the past which have made large use of alien forces for the defence of their empire. A somewhat similar risk is always present to us in connection with the

manning of the merchant service, and hence of one class of the naval reserve. This is not the place to go fully into this question. The tendency to employ troops of alien races in India [1] and Egypt is on the increase, and may eventually bring serious dangers to our empire—risks which, in company with other greater risks of empire, we now, in the hey-day of our pride and glory, do not, perhaps cannot, pause to contemplate. But there is another side to the picture. Amongst our finest soldiers are our Indian fellow-subjects, and it is well known that there are generals of great ability who would be prepared to meet European troops with Indian troops. In this sense the Indian army is a protection to the empire as a whole, nor would one for a moment suggest a doubt of the possible loyalty of the gallant men who have fought side by side with us, ay at times in front of us, if all tales be true, in our Indian campaigns; yet it will be wise doubtless to retain the artillery and the chief commands in our own hands, and to watch with cautious suspicion the gradual increase in our alien forces. Much more we cannot do, unless the country will consent to conscription, to which probably Mr. Morley would object.

Another serious danger has been emphasized again and again by Sir Charles Dilke, perhaps the most knowing Englishman of the day. He points to the great increase in the Army Estimates during the past four years, while he is unable to discover that in return for this enormous increase of expenditure we have more than twenty-four additional men in our Army, Militia, and Reserve forces. At least since the days of Lord Randolph Churchill, the unofficial layman has continued to look with

[1] A certain proportion is maintained between British and native troops in India. See chapter on the Indian army.

suspicion on the expenditure of the War Office; but it would be futile to criticize such expenditure without adequate knowledge. According to Sir Charles Dilke, we shall be spending next year seventy millions on Imperial defence, including forty-two millions on land forces; while France, the next most extravagant State, spends forty millions on Navy and Army.[1] That part of the expenditure which is bestowed upon office work and upon non-active persons and services, will be the part which the Public is most likely to criticize, and the country will sympathize with Lord Lansdowne's lament last year, that the officer of the Army, who is often compelled to retire in the prime of life owing to the exigencies of the service, should not be more largely employed in the auxiliary services of the country, instead of being permitted to become a dissatisfied grumbler, a nuisance to his friends, and a burden to the State. Most people can contrive to grumble whether there is anything to grumble at or not, but to thrust aside upon a shelf a man in the prime of life, who has spent his time in a most active service, gives legitimate cause for grumbling. The remedy, however, is not a simple one. As it is, Militia officers complain that they get too many Army officers.

There are, too, persons impertinent enough to desire more light to be thrown upon the expenditure on the War Office itself, and besides, upon the whole expenditure on civilians connected with the service. In these matters such important interests are affected that it is not likely that any reform will be carried out, if any reform is required, unless, indeed, which is perhaps improbable,

[1] It is obvious that our expenditure here referred to includes Indian expenditure, etc. It is extraordinarily difficult to arrive at the total Imperial expenditure upon defence.

some high official person undertakes its consideration. An astonishing instance of what can be done when such reform is required is given in the Army Book for the British Empire, p. 55 (note), where we learn that one result of Mr. Cardwell's reforms was the reduction of official correspondence from 1500 to 900 letters daily.

Supply has usually been a weak point in our Army system, and seems to be so still. There seems to be a tendency to rely, even increasingly, upon outside resources in the matter of horses for artillery wagons and commissariat. There is no doubt that all armies rely very much on the outbreak of war upon a conscription of horses previously registered, and that they must do so; but it does seem strange that we should at the present time be reducing the number of our trained artillery horses by 1600 on the advice of military experts. That there are officers capable of dealing efficiently with the requirements of supply in the case of armies in the field has been abundantly proved of late years in India and the Soudan.

In regard to the institution of four-gun batteries, it is no new device—nearly half the German batteries are four-gun; and apart from advantages in the way of training, some officers appear to prefer the four-gun battery as tending to quieter and more accurate shooting.

Many other subjects of criticism might be mentioned, as, for instance, the fact that though our regiments are territorially recruited, the home territorial battalion is seldom in its territory, owing to lack of barrack accommodation, etc. Again, the Reserve has never yet reached the number of 100,000 men, which was so confidently expected within a few years of the change of system from long service to what was then called short service. But no army is perfect in its system. Accomplished criticism of defects is

often valuable, but it is not wise to think only of our weakness. There cannot be a doubt that, including the Reserve, the Militia, some part of the Volunteers, and the native army of India, we possess an army for offensive and defensive warfare in Europe and in Asia of far greater magnitude than is usually supposed. We are accustomed to think only of the English active army and its reserve, but the native active army of India may well stand beside its white brothers for all purposes of war, while our Militia has a longer training than that of many foreign Powers. In the Volunteers we have a force inefficient perhaps in parts, and for many obvious reasons requiring careful treatment, but a force full of spirit and devotion, with more training than a great part at least of the second reserve of several important Powers.

And though bravery alone is of little use now-a-days in war, yet when we unite to the known eager yet steadfast courage of our soldiers, the alert and trained intelligence, the smartness, the zeal and devotion to duty of our young officers, so obvious to all who company with our armies on the sands of Africa, or amid the stormy winds and snows of the north-western frontier of India, and when we add the athletic qualities in which the English race is so superior, and the training in actual warfare of the higher officers and the Staff, we may look forward with confidence to the future, as we look back with pride upon the past of the armies of the Queen.

CHAPTER I

WAR ADMINISTRATION AND SERVICE

Administration.—The Secretary of State for War controls the administration of the several services, and heads of departments are responsible to him. He is assisted by a Parliamentary Under-Secretary, a Permanent Under-Secretary, and a Financial Secretary. The principal departments are presided over by the Commander-in-Chief, the Adjutant-General, and Quartermaster-General, and the Inspectors-General of Fortifications and Ordnance. In the department of the Commander-in-Chief are the Military Secretary, the Director of Military Intelligence, and the officer in charge of mobilization services. The Adjutant-General's department is concerned with recruiting, training, discipline, clothing, etc.; the Quartermaster-General has charge of supplies and equipment; and fortifications and ordnance are in the charge of the heads of those departments.

There are several Boards, etc. The *Army Board* is presided over by the Commander-in-Chief, and comprises the heads of departments just mentioned, together with the Accountant-General, representing the Financial Secretary of the War Office. This Board reports on the Army Estimates, promotions, etc. The Secretary of State presides over the *War Office Consultative Council.* The *War Committee of the Cabinet* aims at harmony in the relations of the Navy and Army. It is presided over by the Lord President of the Council, the Duke of Devonshire, and includes the First Lord of the Admiralty, Mr. Goschen,

and the Secretary for War, Lord Lansdowne. Its deliberations and their results are unknown to the public.

Parliament can control expenditure upon war, and hence the amount voted in any series of years depends to some extent upon the political party in power, but to a far greater extent upon the feeling in the country. For some time past the Empire, the Navy, and the Army have boomed; when the boom is over there will be more difficulty in getting money for the Army, and, possibly, more economy in spending it. It is very difficult for the critically-disposed Member of Parliament to get at facts, or to draw just inferences. It is probable that, as in the case of the Navy, certain votes are more popular than others, and that therefore some amount of manipulation takes place in order to bring less popular modes of expenditure under popular heads. On the whole the system, or lack of system, works fairly well. When we are warlike we open our pockets, and when we are unwarlike we button them up. The years of plenty to some extent at least counteract the lean years. The system is not ideal, but ideal systems on paper often work so badly.

In regard to the actual amount of initiation or control exercised by the War Minister for the time being little is known, and the less known the better. There are those, themselves at the head of State departments, who tell us that both they and their departments are in reality directed by the trained experience of the permanent official, the head of the department acting as a figure-head or speaking-tube.

Local command is exercised by and through the general officers commanding districts. But in Ireland the General commanding the forces is an intermediate authority between the district Generals and the Commander-in-Chief.

Districts.—There are in the United Kingdom fifteen military districts; namely, ten in England and Wales, four in Ireland, and the district of Scotland. Of these districts Aldershot, Woolwich, and the Curragh consist only of those localities and their immediate neighbourhoods. The remaining twelve districts are divided into sixty-seven regimental districts, each under a colonel, and each, nominally at least, recruiting two battalions of the active army.

Service.—Service in the English army is voluntary. Age of entry, standards and measurements, etc., vary; but the age of entry should not usually fall below eighteen or rise above twenty-five. In presenting the military programme for the year on March 4, 1899, Mr. Wyndham stated that thirty-five per cent. of those offering themselves were rejected on medical grounds, and spoke of the large number rejected for bad teeth. Such rejections are by no means of complete ill omen. For both navy and army we are at present able to reject many whom we would jump at in time of war, and who would make efficient sailors and soldiers. In 1898 the *total number of recruits was* 38,418.

Age for enlistment, eighteen to twenty-five. Height, five feet four inches and upwards. Chest measurement for infantry, thirty-three inches.

Long service, twelve years with colours and no reserve, is confined to the Household Cavalry, and a few special corps and parts of corps.

Short service, so-called, is as follows :—

Line Cavalry Royal Artillery Army Ordnance Corps	7 years' army and 5 years' reserve service, but in the case of troops abroad service may become 8 years' army and 4 years' reserve.

Army Service Corps	3 years' army, 9 years' reserve, which can be converted into 4 and 8 years' in the case of troops abroad.
Foot Guards Line Infantry Medical Staff Corps Royal Engineers (except Telegraph, Railway and Submarine Reserve)	7 and 5, or 3 and 9, which may become 8 and 4, or 4 and 8, if abroad.

Under certain conditions all warrant and N.C. officers may extend colour service to twelve years. Soldiers of good character may, after eleven years' service, re-engage for a total period of twenty-one years.

Last year the option of enlisting for three years' colour service and nine years' reserve service was extended to the infantry of the line. During the past ten months 3840 recruits have taken advantage of this permission. The Secretary for War states, that "it is as yet too soon to say what proportion of these will pass to the reserve at the end of three years, and what proportion will extend for longer, and more general, service, at full rates of pay."

Under the Act of last year Militia regiments and individual militiamen are permitted to volunteer for temporary service with the regular army. How far this permission is likely to be availed of will be seen after the next training season. Whilst passing through the Press a new Royal Warrant has been issued. The above arrangements hold good, but a Militia regiment may be registered for special service if not less than seventy-five per cent. of the total number of the officers and men present at the training volunteer for special service in any part of the world. The men may belong to the Artillery or Infantry, and they will be liable, when called out for special service, to serve for a period not exceeding twelve

months in any part of the world, including India. A special bounty is provided for the men.

An order was promulgated last year permitting return of reservists to the colours, and during 1898, 4500 reservists availed themselves of this permission. The order is still in force, but the rapidity of the inflow has ceased, and it is not supposed that more than 2000 men will rejoin the army from the reserve during 1899.

Pay, Deferred pay, Pensions, Rations, etc.—The private gets 1*s.* 2*d.* in the cavalry and 1*s.* in the infantry of the line; corporals get 2*s.* and 1*s.* 8*d.* respectively; sergeants 2*s.* 8*d.* and 2*s.* 4*d.*; regimental sergeant-majors 5*s.* 4*d.* and 5*s.* In the Foot Guards privates get 1*s.* 1*d.*, and in the Household Cavalry 1*s.* 9*d.*, and sergeant-majors 5*s.* 4*d.* and 5*s.* 10*d.* respectively.

Deferred pay is granted at the rate of £3 per annum during the first twelve years of the soldier's service, to be received when he completes his army service, whether on final discharge or on entering the army reserve. Men of only three years' service get no deferred pay. In regard to deferred pay the notion was that a small capital would be valuable to the soldier on quitting the army, but the system has not worked well. The soldier resents not getting his full pay at once, and after his—practically—long service, commenced also in extreme youth, has not the knowledge of the world, nor perhaps the prudence, to use his capital to advantage. New terms of service were adopted last year, and it appears that "practically all those qualified by age and service have already accepted the 3*d.* a day messing allowance, and thereby given up their claim to further deferred pay on the old scale."

Pensions.—After twenty-one years' full service the N.C.O.

or private is entitled to a pension at the following maximum rates.

Sergeant-Majors	4*s.* 6*d.* a day.	
Staff Sergeants, etc.	2*s.* 9*d.* a day	after 12 years' service as sergeants.
Colour Sergeants, etc.	2*s.* 6*d.* a day	
Sergeants, etc.	2*s.* 3*d.* a day	
Corporals, etc.	1*s.* 8*d.* a day.	
Privates, gunners, etc.	1*s.* 1*d.* a day.	

Proportionate pensions are given in the case of premature discharges, wounds, injuries, etc.

Pay in the reserve is at the rate of 4*d.* a day, with 2*d.* a day deferred pay; but under the act of last session, 1*s.* a day special reserve pay for the first year of reserve, with liability to recall to the colours in minor emergencies, was offered. Up to Feb. 1, 1899, 1750 men of the army reserve have accepted this offer, and it is believed that this class will shortly reach, and without difficulty be maintained at, the authorized strength of 5000 men. The need for such a reserve to be used for completing small expeditionary forces, shows the necessarily complicated nature of our war service. The force should be of value as enabling the authorities to provide for a temporary emergency without the inconvenient legal procedure involved in calling out the ordinary reserve, a process which, moreover, is apt to beget excitement at home and observation abroad.

Rations of bread and meat, lodging, bedding, fuel and lights, medical attendance, and education are free. Sixpence a day may be allowed in lieu of ration. A free kit of clothing is provided on joining, and external clothing is granted annually. Libraries, recreation rooms, etc., are supplied, and trades are taught. There is an increasing number of civil appointments open to soldiers of good

character, and it is worthy of remark that the large majority of the reservists who rejoined the army under the order of 1898 were found to be in employment at the time they rejoined. A better idea of the social position of the reservists would have been obtained had the actual figures been given rather than the expression "large majority." In several parts of the country the reservist is at the present time almost the only labourer obtainable for agricultural purposes, to add to the old men who have spent their lives on particular farms, but whose sons have been attracted to the towns or colonies.

It is encouraging to find that the reservist becomes an inmate of the workhouse with comparative infrequency.

Training of the Reserve.—Reserve men are liable to be called up for twelve days or twenty drills.

The Militia.

This ancient force corresponds more nearly than any other to a national army. Its purpose is to provide a body of trained men in case of national danger, and to supplement the regular army at home or in the Mediterranean. It acts, moreover, both in times of peace and of war, as an important feeder to the army. During the Crimean War the militia supplied the army with over 30,000 men and officers, and at present nearly one-third of our recruits for active service comes from this source, while a large number of young officers enter the army annually through the militia. The drain upon its resources is heavy, and, in the opinion of many militia officers, it is injured as a collective whole; but the close connection between the two services tends to keep up a military spirit in the militia, especially since the territorial system

has been in vogue, and since militia battalions have been closely attached to active battalions of the same regiments. The ballot for the militia, suspended in 1829, can be revived on emergency, and is our nearest approach to conscription, but at present entry is by voluntary recruiting. One-third of the whole number of militiamen is still furnished by agricultural labourers, mechanical labourers come next, and then miners. In regard to religions, about half the men of this force are entered as belonging to the Church of England, and two-fifths are Roman Catholics.

Service in the Militia is for six years. Men may enter from the commencement of the eighteenth to the end of the thirty-fifth, or in the case of old soldiers, of the forty-fifth year. Under the age of forty-five, militiamen may re-engage for four years. Recruits may be assembled any time after enlistment for a six months' preliminary drill. The annual training does not exceed twenty-seven days, which may be extended to fifty-six days if needed. It is considered that this four weeks' training is too short, and that the period should be extended to six weeks.

Militia Reserve.—Men volunteering for this force must be over nineteen years of age, have served two trainings, and be of good character. The force is between one-third and one quarter of the total militia, and serves as an immediately available reserve for the active army.

Payment is by a bounty, payable in successive fractions on engagement, and at the close of each period of instruction. The militia is clothed, armed, and equipped by the State. The daily rate of pay for privates in the militia is one shilling.

Average annual number of recruits, about 40,000.

Volunteers.

The volunteers may be included amongst our reserve military forces. It is even permissible under the Volunteer Act of 1896 for members of a volunteer corps to be called out for military service, either as a corps or as part of a corps, whilst individuals may offer themselves for service whenever an order for the embodiment of the militia is in force. As an independent force their value is impaired, owing to lack of supply, commissariat, and other auxiliary services.

In order to give the volunteers greater cohesion, they have been formed into thirty-three brigades, but the scheme is as yet imperfect, and imperfectly carried out. The class of men entering the volunteers has changed with the changed conditions of English labour, and does not now so largely consist of agriculturists as formerly. Hence there is increasing difficulty in obtaining officers, less local interest being taken in the various battalions now that they are so largely recruited from concentrated areas of population. No doubt the prospect of a war would bring forward many young men of good social position, eager to serve in the corps, and to get a possible chance of active service. The spirit of officers and men is, on the whole, good under increasingly trying conditions in respect to strictness of training. The force is one which should be treated with firmness, combined with the utmost delicacy, and with the highest respect for men who freely give so much to the country.

It may be well to say here almost all that space will permit with regard to the volunteers. The force was established in 1860, with a muster roll of 119,000. This year the establishment of the volunteer force numbers,

including 899 Honourable Artillery Company, 264,833, being an increase on last year of 870. For many years past the numbers in the force have usually varied but slightly from year to year, and, over periods of years, the increase has been steady. The volunteers cannot be expected to cope on equal terms with regular troops. It is probable that, in the case of invasion, they would be used to set free from garrison and local duty other parts of the offensive and defensive forces of the country. It is hoped, and expected, that their training with modern weapons, both guns and rifles, will shortly become more complete, and that it may not be possible in the future, as it was but a few years ago, to say with regard to a corps in a great centre of population, which *won* an important prize for artillery shooting, that its principal training for the contest was the study of the theory of artillery fire by means of the gun in the local museum.

Yeomanry.—The yeomanry, or volunteer horse, consists of thirty-eight corps, organized in eighteen brigades, one corps, the Pembrokeshire, being unattached. Under the existing scheme fifteen brigades are allotted as divisional cavalry for the home defence army, the Pembrokeshire corps for Milford Haven defences, and the remaining three corps for the defences of Portsmouth, Devon, and Kent. The force is largely recruited from among young farmers, though not so largely as in former years, and the commissions are chiefly held by the landed gentry.

Training is for eight days annually. *Pay* for privates is at the rate of seven shillings a day, but men must provide their own horses. The *total yeomanry cavalry* is put at 11,891 of all ranks, but it is doubtful whether the force in reality much exceeds 9000

CHAPTER II

ORGANIZATION, RECRUITING, NUMBERS, DISTRIBUTION, ETC.

Infantry system.—Each of the sixty-seven regimental districts is commanded by a colonel, who, amongst his duties, keeps the addresses of the regimental reservists, pays them, and calls them out. The territorial district, as a rule, recruits a territorial regiment, comprising two line battalions, two militia battalions, and including the regimental depôt, and the volunteer battalions of its area. The principle for recruiting is that 100,000 population should produce a militia battalion of 1000; hence a population of 200,000 is taken as the average number for a recruiting area. A few regimental areas have more than two militia battalions, and a considerable number have less. The policy is to make all alike. The attached volunteer battalions vary in number from one to eight.

The Guards, namely, the Grenadier, Coldstream, and Scots Guards, have their head-quarters at Whitehall. Each regiment is to have three battalions, but the third battalion of the Coldstreams is not complete, and the authorized third battalion of the Scots Guards is not yet commenced. The Guards are not directly connected with militia or volunteers; but certain militia and volunteer battalions round London are attached to them for various purposes.

There are two *Rifle* regiments, namely, the King's Royal Rifle Corps, and the Rifle Brigade. Both have their depôts temporarily at Gosport. They are not territorial regiments. Each has four line battalions.

The depôt usually comprises four companies with a permanent strength of a major, a captain, two lieutenants, a quarter-master-sergeant, four colour sergeants, four

sergeants, two drummers, ten corporals, forty privates. Attached to the depôt is the permanent staff of the militia battalions. The work of the depôt is to recruit and train. Adjutants and sergeant instructors of militia battalions are usually taken from the regular battalions.

The home battalion of line regiments is quartered in one of the camps, or in a garrison town in Great Britain, Ireland, or the Channel Islands. The principal camps are Aldershot, the Curragh, Colchester and Shorncliffe. Other tactical camps, etc., are Stensall in Yorkshire, Barry Links near Dundee, Cannock Chase, Chatham, and Salisbury Plain.

The *Royal Artillery* recruits from ten recruiting areas, into which the United Kingdom is, for such purpose, divided.

The *Royal Engineers* recruit through the "Commanding Royal Engineer" in each district command of the United Kingdom.

The *Cavalry* districts are three, with three depôts.

Recruiting during the year has been brisk. In 1897-98 a scheme was entered upon which should by March 31, 1901, add 25,083 of all ranks to the army, namely—

Cavalry	684
Horse and Field Artillery	3,453
Garrison Artillery	3,714
Foot Guards	2,861
Infantry	12,230
West India Regiment	1,011
Malta Militia	1,130
	25,083

The table which follows shows the increase so far attained—an increase during 1898 of nearly 10,000 men; but, as before remarked, during that year about 4500 reservists returned to the colours, and though the order permitting such return is still in force, no such inflow

can be expected during 1899, indeed it is expected that the inflow from the reserve this year will not exceed 2000 men. Bringing back reservists to the colours in time of peace seems rather like increasing income by transferring money from one pocket into another.

ACTUAL STRENGTH (ALL RANKS, EXCLUSIVE OF INDIA) ON JANUARY 1.

	1897	1898	1899	Decrease since Jan. 1897	Increase since Jan. 1897
Cavalry	13,516	12,909	13,467	49	—
Horse and Field Artillery	8,166	9,332	10,195	—	2,029
Garrison and Mountain Artillery	13,853	14,513	15,722	—	1,869
Foot Guards	5,851	6,591	7,249	—	1,398
Infantry of the Line	81,610	81,385	87,085	—	5,475
Royal Engineers	7,485	7,448	7,637	—	152
Army Service Corps	3,847	3,859	3,841	6	—
Royal Army Medical Corps	2,699	2,651	2,853	—	154
Other Departmental Corps	2,008	2,010	2,109	—	101
West India Regiment	2,223	2,433	2,854	—	631
Other Native Corps	3,218	3,233	3,265	—	47
Malta and other Colonial Militia	1,261	1,818	2,041	—	780
Total	145,737	148,677	158,318	55	12,636

But including that part of the Staff of the auxiliary forces which is supplied by the regular army, and which numbers 6697 of all ranks, the total peace strength, exclusive of India, amounts to 165,015.

The number of all ranks serving in India during 1899–1900 will be 71,157; so that the—

Total peace strength of the British army is 236,172.

Subjoined is the establishment of British regiments serving in India, with a comparison between the years 1899-1900 and 1898-99, which shows practically no difference at all, and well illustrates the care which is taken to keep battalions for India up to their numbers.

Establishment of British Regiments serving in India.

	Officers	Warrant Officers	Sergeants	Drummers, Trumpeters and Buglers	Rank and File	All Ranks 1899-1900.		All Ranks 1898-99.	
Cavalry of the Line: 9 Regiments	261	18	486	81	4,770	5,616		5,616	
Royal Artillery: 11 Horse Batteries	55	—	99	22	1,606	1,782	13,403	1,782	13,398
Royal Artillery: Staff	11	2	1	—	3	17		17	
Royal Artillery: 42 Field Batteries	210	—	378	84	6,132	6,804		6,804	
Royal Artillery: Ammunition Columns	—	—	6	—	—	6		6	
Royal Artillery: Staff	16	3	4	—	10	33		33	
Royal Artillery: 8 Mountain Batteries	40	—	72	16	760	888		888	
Royal Artillery: Staff	3	—	—	—	—	3		3	
Royal Artillery: 27 Garrison Companies	135	—	174	54	3,376	3,739		3,735	
Royal Artillery: Staff, etc.	20	13	56	—	42	131		130	
Royal Engineers	340	—	3	—	—	343		353	
Infantry of the Line: 52 Battalions	1,508	104	2,343	847	48,880	53,682		53,682	
Armourers (100) and Machinery Artificers (13)	—	—	113	—	—	113		113	
Total	2,599	140	3,735	1,104	65,579	73,157		73,162	

Exclusive of officers' horses, there are in India 4,725 cavalry horses, 7,455 artillery horses and mules; also 390 horsed guns and 366 artillery ammunition wagons, drawn by horse or mule.

Certain further details regarding the home army are given on page 61.

PROPOSED DISTRIBUTION OF REGIMENTAL ESTABLISHMENTS.

	CAVALRY.			ARTILLERY.					ENGINEERS.‡			INFANTRY (Excluding Colonial Corps).			ARMY SERVICE CORPS.	COLONIAL CORPS.				DEPARTMENTAL CORPS.					TOTAL, ALL RANKS.
	Number of Regiments.			Number of Batteries or Companies.					Number of Troops and Companies.	All Ranks.		Number of Battalions.				Number of Companies.				Royal Army Medical Corps.					
	Household.	Line.	All Ranks.	Horse.	Field.	Mountain.	Garrison.	All Ranks.		Officers.	Men.	Foot Guards.	Line.	All Ranks.		Infantry.	Local Artillery.	Local Engineers.	All Ranks.	Officers.	Men.	Army Ordnance Department.	Army Ordnance Corps.	Army Pay Corps.	
HOME.																									
Regimental Establishment . .	3	—	1,290	10	57	1	39	18,310	34	454	5,306	6	—	5,457	4,426	—	—	—	—	396	2,166	193	985	526	125,197
	—	16	11,149									—	73	65,387											
Depôts, Military Police, etc. . .	—	—	69	—	—	—	6	2,963	10			—	—	6,120	—	—	—	—	—	—	—	—	—	—	—
Permanent Staff of Militia † . .	—	—	—	—	—	—	—	743	—	—	97	—	—	3,690	—	—	—	—	—	—	13	—	—	—	4,543
Permanent Staff of Yeomanry and Volunteers	—	—	171	—	—	—	—	405	—	—	77	—	—	1,395	—	—	—	—	—	1	13	—	—	—	2,062
TOTAL for HOME . . .	3	16	12,679	10	57	1	45	22,421	44	454	5,480	6	73	82,049	4,426	—	—	—	—	397	2,192	193	985	526	131,802
COLONIES AND EGYPT.																									
America, North, including West Indies:																									
Bermuda	—	—	—	—	—	—	3	*673	3	12	264	—	1	*1,017	12	—	—	—	—	8	24	5	36	4	2,055
Halifax	—	—	—	—	—	—	2	533	2	10	173	—	1	1,012	13	—	—	—	—	5	14	3	20	8	1,791
Jamaica	—	—	—	—	—	—	1	236	—	7	57	—	[illegible]	376	5	6	1	1½	1,019	7	18	3	11	3	1,742
Barbados and St. Lucia . .	—	—	—	—	—	—	1	222	—	4	14	—	[illegible]	636	9	4	1	¼	612	8	19	2	6	4	1,536
Africa, South:																									
Cape, including Natal . .	—	2	1,186	—	3	1	2	1,075	1	9	111	—	6	6,079	125	—	—	—	—	25	131	8	61	17	8,827
St. Helena	—	—	—	—	—	—	1	208	1	3	27	—	—	—	4	4	—	—	517	1	4	1	5	1	771
Mauritius	—	—	—	—	—	—	2	346		6	112	—	1	1,012	5	16	2	††1	2,311	5	17	2	14	—	3,830
Africa, West Coast of . . .	—	—	—	—	—	—	1	110	—	2	6	—	—	—	5	12	1	¼	1,701	10	6	1	6	2	1,849
China, Ceylon, etc.:																									
Hong Kong	—	—	—	—	—	—	3	657	1	11	179	—	[illegible]	779	7	11	4	1	1,921	9	33	5	18	6	3,625
Wei-hai-wei ‡‡	—	—	—	—	—	—	1	128	[illegible]	5	48	—	[illegible]	233	—	5	—	—	692	1	3	—	1	1	1,112
Straits Settlements . . .	—	—	—	—	—	—	2	330	[illegible]	6	101	—	1	1,012	6	—	1	1	171	5	21	2	11	4	1,669
Ceylon	—	—	—	—	—	—	2	344	½	9	94	—	1	1,012	6	—	2	1	265	7	17	5	14	3	1,776
Mediterranean:																									
Gibraltar	—	—	—	—	—	—	7	1,741	4	15	399	3	—	3,027	89	—	—	—	—	16	80	6	48	7	5,428
Malta	—	—	—	—	—	—	9	2,266	3	23	309	—	[illegible]	*7,043	71	—	6	—	§725	24	140	9	36	17	10,663
Cyprus	—	—	—	—	—	—	—	—	—	—	1	—	[illegible]	123	1	—	—	—	—	1	5	—	3	1	135
Egypt	—	1	539	—	1	—	1	323	1	11	104	—	3	3,111	100	—	—	—	—	15	94	4	52	10	4,363
Not detailed	—	—	—	—	—	—	—	—	—	‖31	—	—	—	—	—	—	—	—	—	—	—	—	—	1	32
TOTAL for COLONIES and EGYPT	—	3	1,725	—	4	1	38	9,192	17½	164	1,999	3	23	26,472	458	58	18	6	9,934	147	626	56	342	89	51,204
TOTAL, HOME and COLONIAL ESTABLISHMENT	3	19	14,404	10	61	2	83	31,613	61½	618	7,479	9	96	108,521	4,884	58	18	6	9,934	544	2,818	249	1,327	615	183,006
INDIA	—	9	5,616	11	42	8	27	13,403	1	340	3	—	52	53,682	—	—	—	—	—	—	—	—	113	—	73,157
TOTAL . . .	3	28	20,020	21	103	10	110	45,016	62½	958	7,482	9	148	162,203	4,884	58	18	6	9,934	544	2,818	249	1,440	615	256,163

* Including Permanent Staff of Militia and Volunteers. † Inclusive of Staff of the Channel Islands Militia. ‡ Including European portion of the Eastern Submarine Mining and West Indian Companies.
§ Royal Malta Artillery. ‖ Employed with Colonial Forces and on miscellaneous duties abroad.
†† The natives of the Mauritius Local Submarine Mining Company are being reduced as casualties occur, and replaced by hired Lascars.
‡‡ Only such portion of the garrison for Wei-hai-wei has been inserted as is expected to be raised during the current year.

To face p. 61.]

ESTABLISHMENT OF THE REGULAR ARMY, EXCLUSIVE OF INDIA.

	Officers	Warrant Officers	Sergeants	Drummers, Trumpeters, etc.	Rank and File
Cavalry, including Household Cavalry	551	46	1,110	178	12,348
Royal Artillery	1,142	108	2,106	355	26,747
Royal Engineers	618	131	1,106	120	5,944
Infantry, including Foot Guards	3,042	278	5,229	1,901	92,905
Army Service Corps	284	177	673	52	3,698
Colonial Corps	280	9	499	139	9,007
Departmental Corps	753	171	1,276	17	3,309
Total	6,670	920	11,999	2,762	153,958

There are also approximately 266 horsed guns, 8,989 cavalry troop horses, 6,035 artillery horses, and 166 horsed artillery ammunition wagons.

Before endeavouring to estimate the war strength of our armies, it may be well to extract from the current army estimates the list of the proposed distribution of regimental establishments of the regular army for 1899. This list gives at a glance the most valuable information regarding the distribution of British troops all over the world. It is perhaps well to add, that the number of Cavalry squadrons is 121, with three depôts; that five batteries Horse Artillery (home) are on the lower establishment (157 officers and men, and ninety horses and mules), five on the higher establishment (167 officers and men, 104 horses and mules); that forty-one batteries Field Artillery (home) are on the lower establishment (141 officers and men, 58 horses and mules); thirteen on the higher establishment (166 officers and men, 86 horses and mules). The total number of Horse Artillery batteries is twenty-one, eleven being in India; Field Artillery batteries 103, forty-two being in India.

As in the case of all other countries, the war strength of the British armies is not easily obtained. On Jan. 1,

1899, the reserve stood at 78,798 men. But besides this force there is the so-called militia reserve, which is not a reserve for the militia, but for the army, and which may be estimated at 29,000 men. The following tables give, approximately, the war strength of the British, Indian, and Colonial military forces.

Army at home and abroad, including India	238,172
Reserve	78,798
Militia Reserve	29,000
Army and its Reserves	345,970
Army and its Reserves	345,970
Militia	99,000
Yeomanry	8,800
Volunteers	230,000
Total British forces	683,770
Total British forces	683,770
Native Army of India	150,000
European Volunteers in India, and elsewhere	30,000
Imperial Service troops	20,000
Total British and Native forces	883,770

But we have yet to add the militias of the various Colonies.

Total British and Native forces	883,770
Canadian Militia	35,000
Canadian Militia Reserve	200,000
Cape Colony Volunteers, Mounted Rifles, etc.	7,400
New South Wales forces	10,000
Victorian forces	7,000
South Australian forces	3,000
Forces of other Australian Colonies	3,000
New Zealand forces	7,000
Other Colonies, etc.	12,000
	1,168,170
Total war strength of the British Empire	1,170,000

It will be observed that the large irregular armies of the Indian native states are not included in the above numbers; and it ought also to be remarked, that the local forces, etc., comprised in the above totals are both better trained for war and more mobile than large parts of the second and third class reserves of the great continental powers. Great parts of those reserves consist of paper soldiers, who have had no military training at all. These parts of such reserves are, in fact, merely an enrolment of all persons fit for military training. But we have no paper soldiers.

The Army Corps.

The army corps was first used in the year 1800 by General Moreau. Its object is to avoid burdening the mind of the Commander-in-Chief with needless detail, by devolving upon subordinate generals the entire charge of important units. The army corps was first used in the British army in the campaign of Waterloo. Its composition is as follows:—

3 infantry divisions, each of two brigades, and including 3 cavalry squadrons, 9 field batteries, and 3 engineer companies.

7 machine gun detachments.

1 squadron cavalry.

2 field batteries (corps artillery).

3 Horse Artillery batteries.

4 to 8 ammunition columns (4 at home, 8 abroad).

1 engineer company.

1 bridging troop.

½ telegraph company.

1 balloon section.

1 engineer field park.

10 to 12 army service corps companies (12 abroad).

6 bearer companies.

3 to 10 field hospitals (10 abroad).

2 signaller companies.

The field batteries are attached to the infantry divisions and the horse batteries to the cavalry squadrons.

Number of units in army corps :—

25 battalions.

4 squadrons.

84 guns.

4 engineer companies, etc.

Total strength of army corps :—

1,158 officers, etc.

33,952 other ranks.

10,116 horses.

The field army consists of three army corps and four cavalry brigades, with the troops required for the lines of communication. A brigade of cavalry numbers 114 officers, and 2167 non-commissioned officers and men, with 2219 horses. Hence a field army will number approximately 114,400.

An infantry brigade is commanded by a Major-General; an infantry division by a Lieutenant-General; an army corps by a General.

CHAPTER III

FOOD AND FORAGE

It is understood that under the new regulations the private gets his clear one shilling a day without the previous deduction of threepence for messing allowance, which threepence was returned to him in the form of deferred pay, and that almost all those qualified have accepted the new terms, and given up their claim to further deferred pay. It is not so clear of what the ration now consists. It appears to be about ¾ lb. beef or mutton, including bone, 1 lb. bread, flour, groceries, vegetables, etc.

The *field ration* is as follows:—1 lb. fresh or other meat, 1¼ lbs. bread or 1 lb. biscuit, ⅛ oz. tea, ⅓ oz. coffee, 2 oz. sugar, ½ oz. salt, $\frac{1}{36}$ oz. pepper, ½ lb. fresh vegetables, or 1 oz. preserved vegetables, and, when ordered by the General commanding, ⅛ oz. lime juice and ¼ oz. sugar, and rum.

It appears that there is no free tobacco ration. The meat may be increased to 1¼ lbs. by order of the G. O. C., if meat is abundant. Lord Wolseley advocates making the field ration as palatable as possible. "Cheese, jam, and pickles' should never be absent from the soldier's ration when it is possible to obtain those articles of food." He also advocates the issue during campaigns of soap and tobacco rations, 1 lb. of each per man per month.

Forage.—The usual field ration is, for chargers, 10 lbs. oats and 12 lbs. hay; other animals, 8 lbs. oats, 10 lbs. hay. 28 lbs. green forage = 10 lbs. hay. Apparently no straw is allowed.

On service the man carries one day's "iron" ration with him, and when on the march also one day's ordinary ration, meat excepted. The meat is carried regimentally in carts. Each horse and transport animal carries one day's complete forage. Three days' provision for the men, one day's hay and three days' oats are carried by the commissariat. These stores are not to be infringed on unless necessary, and the amount expended must be supplied as soon as possible from the advanced magazine, which should always contain four days' complete supply for all men and horses at the front.

Fuel.—The ration per British soldier per day is 3 lbs. firewood or 1½ lbs. coal, 2 lbs. kindling wood being allowed to every 40 lbs. coal. This is the cooking ration. Other rations are issued according to circumstances. Where wood is plentiful soldiers supply themselves when campaigning.

CHAPTER IV

THE ACTIVE ARMY

Infantry.

The *Battalion* is the most important unit. The establishment of the home battalion is 24 officers, two warrant officers, 38 N.C.O.s, 16 drummers, 40 corporals, one orderly-room clerk, 680 privates—*total*, 801. The foreign battalion at war (the usual) strength has 29 officers, one sergeant-major, 44 sergeants, 16 drummers, 921 rank and file—*total*, 1011.

In the case of the home battalion, about 500 privates

are young soldiers under four years' service, who have been sent from the depôt after three months' drill. They remain from one to four years before being drafted to the foreign battalion. Drafting is between September and March. No man may go to India under twenty. The average draft is 160 men. The foreign battalions are composed of well-trained soldiers, and kept thoroughly efficient.

In other countries, where the *regiment*, consisting of several battalions, is the unit, the regimental commander is the important person, the battalion commander is comparatively unimportant. With us the battalion is normally divided into eight companies. The company has two or three officers, eleven or twelve N.C.O.s, etc., 85 to 110 privates. The tendency is to develop the responsibility of the company commander, a captain or major, who pays the men, trains them, and gives lesser punishments. Companies abroad often number 250. Our army is far more "fully officered" than is usual in other countries.

Pioneers, ten to a battalion, under a sergeant, in peace, eighteen in war. Pioneers carry neither rifles nor ammunition, but an average twelve pounds weight of tools, including axes, picks, shovels, shoeing tools, etc.

Uniform is too various to enumerate in all its details. At home we have the familiar scarlet, and the Highland tartan. In the Straits Settlements, etc., white cotton frocks and trousers are issued. In India the khaki rung, or dust-colour cotton cloth, is largely used. The uniform of the King's Royal Rifle Corps is green with scarlet facings, and of the Rifle Brigade green with black facings. The uniform of the three Guards regiments is scarlet, with blue facings.

Equipment.—The most important items, with their weights, are as follows:—

	lbs.	oz.
Clothes in wear	12	4
Accoutrements	4	0
Arms	10	3½
Mess-tin	1	9
Water-bottle	1	1
Field dressing		2
Valise and contents	14	13

The valise contains reserve ration, towel, hold-all, flannel shirt, greatcoat, shoes, socks, etc. When the valise is not worn, a number of the small articles are in the pockets of the greatcoat, which is rolled and strapped to the back of the waist-belt. The total weight carried when the valise is worn is 55·0 lbs., and 47·7 lbs. when it is not worn.

Regimental intrenching tools are carried in one cart. The Wallace spade has a handle which forms a pick. About 50 per cent. of rank and file should be able to obtain them from the cart when necessary. They are carried in a frog, which fastens on the waistbelt.

Armament.—The Lee-Metford magazine rifle, sighted up to 2800 yards; extreme range 3500 yards. Can be used as a single loader, has a detachable box magazine holding ten cartridges. Length of rifle, 49·5 inches, of sword-blade 12 inches. Weight, including cleaning-rod, etc., 9 lbs. 4 oz., with bayonet, 10 lbs. 3½ oz. Number of rounds carried, 150. The number of rounds per man carried in the field on the person, with the battalion in carts, by the first reserve, etc., is 322. Calibre, ·303 inches. Bullet, 215 grains—soft core of lead, and a harder envelope of copper and nickel. Muzzle velocity, 2000 f. s. Charge, thirty grains of cordite. This rifle will be replaced by the Lee-Enfield; the difference being that the new barrel will have the Enfield rifling. Smoke-

less powder, "cordite," is now used throughout the British Regular Army.

Battalion Transport.—

Carts	Intrenching tool	1
	Small-arm ammunition	4
Wagons	Head-quarter	1
	Companies	4
	Supply	2
	Tent	3
		15

Also two mules for ammunition, one for medical panniers. Wagons are four-horsed.

Mounted Infantry in the modern sense originated in the Secession war, and were one of the causes of the ultimate success of the North. A force is required, especially perhaps in our little wars against such fighting men as those of the Soudan, which shall comprise mobility with the characteristics of infantry, especially in shooting. Under Captain Havelock (Sir H. Havelock-Allan) a body of infantry mounted on ponies dispersed a large body of mutineers, and Sir John Ross's mounted infantry did similarly good work during the Mutiny. In most of our little wars since that time mounted infantry have played their part.

During the past few years some thousands of officers and men have been trained in mounted infantry duties. Small detachments are selected from infantry battalions and specially trained for from two to three months, the objects being to provide a force of infantry capable of co-operating with cavalry and horse artillery, and to provide infantry battalions with a mobile force.

Somewhat similar principles apply to the formation of

Cyclist corps, though it is probable that cyclists would fulfil also more of the duties of light cavalry, especially in regard to covering the face of an army, and keeping up communications. Judging by the German manœuvres last year, cyclists will probably prove of value for fighting purposes. In England this would perhaps be especially the case in connection with the volunteers, large numbers of whom are likely to take kindly to this sort of work. The evolutions of cyclists during the Easter manœuvres this year were highly commended by military authorities. Both for mounted infantry and cyclists, the only alterations required in uniform are cord breeches and putties. At Aldershot the cyclists are under the command of the commander of mounted infantry, at the time of writing Lieutenant-Colonel Alderson, D.A.A.G., and number about 100 men, drawn from the 1st Lancashire Fusiliers, the 1st Durham Light Infantry, the 2nd Cameron Highlanders, and the 1st Royal Dublin Fusiliers.

Cavalry.

The work of cavalry is manifold, but twofold especially—namely, to charge, and to cover the face of the army with a cloud which obscures the intentions of their own force and communicates those of the opposing force. This latter duty was extraordinarily well carried out by the German Uhlan in the war of 1870-71. When employed as a screen a regiment of cavalry should be from ten to fifteen miles in advance of the army, with three squadrons in advance, one in support. According to my recollections, the Uhlan during the Franco-German war was often further in advance than this.

There are thirty-one regiments in all, namely, five heavy,

thirteen medium, thirteen light. N.C.O.s and men of the three Household Cavalry regiments (Heavies) must be over six feet high. There are six Lancer regiments, all medium cavalry, and the tendency is to increase the number of Lancer regiments, and to extend the use of the lance to front ranks of the other regiments.

The regiment consists of four squadrons, and there are thus 124 squadrons. The Indian establishment is nine regiments of the line. The regimental Staff comprises the lieutenant-colonel commanding, the senior major, adjutant, riding-master, etc. The adjutant is in charge of the instruction of recruits and young officers. The riding-master trains recruits, officers or men. Leaving his hands young soldiers pass to the squadron commander.

The squadron, reintroduced in 1892, is commanded by a major or senior captain, a responsible officer who has charge of drill and field manœuvres. Squadrons are divided into three or four troops.

Regimental establishments vary in numbers. In this year's estimates the three regiments of Life and Horse Guards are established at twenty-four officers, 430 of all ranks, and 275 horses. Regiments of line cavalry (home) are at twenty-six officers, 696 of all ranks, and 465 horses and mules, including six draught horses for regimental transport. Regiments of cavalry (India) appear at twenty-nine officers and 624 of all ranks, with 592 horses. The war establishment for cavalry of the line would probably be about 664 of all ranks with eighty-eight officers' horses, 457 troop horses, sixty-eight draught horses, and five pack animals.

Uniform is scarlet or blue with various facings.

Equipment.—Weight of complete set of saddlery, 47¾ lbs. Total weight carried by horse, including arms, kit,

two days' rations for the man and one day's corn for horse, from 18 stone 5 lbs. (Hussars) to 19 stone 10 lbs. (Heavy Cavalry). Twelve pioneers per regiment carry stores and tools for demolition, etc.

Armament.—Lee-Metford carbine, 7¼ lbs., 3 ft. 4 in. long, ammunition same as that of rifle; sword. Lance in Lancer regiments, and in front rank of all Dragoon regiments as a tentative measure. The trooper carries thirty rounds of ammunition. The three regiments of Household Cavalry wear cuirass and steel helmet.

Regimental transport.—Two two-horse carts with small arm ammunition and tools, twelve four-horse wagons, including forge, two tent wagons, etc.

Horse supply.—General Sir John Adye states, that when the Crimean War began, the land transport corps "was represented by the expressive figure 0," and that when peace was signed it consisted of 14,000 drivers, 28,000 animals, and 1800 vehicles. He adds, that undisciplined corps only hamper a General. Yet there can be no doubt that the greater part of our transport in the case of a great continental war would have to be improvised at the time. We should again, in General Peel's words, "commence a great war with little means."

In peace about two-thirds of the horses required are riding and one-third draught; in war the proportions are the reverse. Horses are purchased by the Army Re-mount Department, there being two re-mount depôts, Woolwich and Dublin. Horses are besides registered in peace for purchase, if need be, in war. Riding and draught horses are purchased from rising four years to rising seven years, and between fifteen hands and sixteen hands high. The annual replacement is estimated at ten per cent. of the establishment. India supplies its own horses. In peace

about 15,500 horses are required, the annual purchase being about 1600. Total cost, £82,500, including £7000 for registering 14,000 reserve horses at a fee of ten shillings per horse.

In 1882 it took a War Office Committee seventeen weeks to procure 1700 re-mounts. The statement sounds almost incredible. It shows, however, how essential is a peace registration of horses with a view to war. By the National Defence Act of 1888, Government is empowered to purchase or hire animals required whenever an order for the embodiment of the militia is in force. There are in Great Britain and Ireland about 3,000,000 horses, and about 70,000 fit for military purposes. In war time about 30,000 horses would be required at home, and in a continental war (see Sir J. Adye on Crimean War above) at least an equal number abroad. No horses are much use except corn-fed horses in hard condition. The present system of registration provides for an annual inspection of registered horses, with a registered purchase price. But the number registered does not exceed 14,000 or 15,000—10,000 being draught horses, the rest fitted for riding. Owners must furnish the registered or similar horses, at forty-eight hours' notice, under a penalty of £50. It is clear that, as in the past, though happily to a somewhat less extent, the question of re-mounts, and above all of transport, would be *the* question on the outbreak of a great war.

Royal Artillery.

Up to June 1 of this year the Royal Artillery was a single regiment. The corps is now divided into the Royal regiment of artillery (Horse and Field Artillery), and the Royal regiment of artillery (Garrison and Mountain

Artillery). Officers and men are no longer interchangeable between the two branches, but join or enlist permanently for either. The general mess and band are retained. Under the old system it was often the aim of the keen gunner to obtain the jacket of the Royal Horse Artillery, and that will be so still. In regard to the Field Artillery officer. Officers in the other branch who are eager to see service will try for mountain batteries or Staff employment.

There are a depôt for the horse artillery, a depôt for field artillery, and six depôts for garrison artillery. In regard to garrison artillery it may be remarked, that the study of this subject is a veritable nightmare to the layman,—for instance, the southern division of garrison artillery comprises the districts of Cork, Belfast, Dublin, Aldershot, and the north-western district.

The "Proposed Distribution of Regimental Establishments" (see facing p. 61) places the number of horse artillery batteries at twenty-one, of which eleven are for India. Of the total batteries sixteen are six-gun and five are four-gun. The field artillery batteries are placed at 103—forty-two batteries being in India. Some of the batteries are six-gun, some four-gun, Indian batteries being six-gun. The four-gun batteries would be raised to six-gun for service. Under last year's programme fifteen new batteries of field artillery were to be provided within three years: last year's five batteries have been raised, and four of them are on service. There are three howitzer batteries of four howitzers each, all at Woolwich. For detail of garrison artillery companies it is worth while to look at the list above, "Proposed Distribution, etc."

Woolwich is the head-quarters of the Royal Artillery. Here officers, cadets and men, cadets also of the Royal

Marine Artillery, are instructed. The Royal Artillery is charged with the ammunition transport of the rest of the army, and for this purpose maintains the nuclei of fifteen ammunition columns at the places at which ammunition and equipment are stored.

The proportion of guns to bayonets is to be three guns to 1000 bayonets, up to five guns per 1000 with small independent bodies. Artillery is an auxiliary arm, and is assigned to divisions and to corps. Corps artillery consists of both field and horse artillery, the latter being specially assigned to cavalry. Each corps should have two horse batteries (twelve guns) and six field batteries (thirty-six guns) as corps artillery. Each infantry division should have three field batteries (eighteen guns) as divisional artillery. A cavalry division has two horse batteries (twelve guns), and a cavalry brigade one horse battery (six guns).

In War.

	Officers	Other Ranks	Horses	Horsed Guns	Horsed Ammunition Wagons	Horsed Supply Wagons
Horse battery	5	179	201	6	6	7
Field „	5	170	138	6	6	7

In peace the number of officers is the same. In peace Indian horse and field batteries have six guns and 157 men.

Uniform of the Royal Artillery is blue with scarlet facings, busby-bag scarlet, plume white.

Equipment.—Personal equipment of mounted men is much the same as that of cavalry.

Armament.—The horse artillery gun is the twelve-pounder breech-loader, calibre three inches, firing shrapnel shell, and case shot. The field artillery gun is the fifteen-pounder breech-loader, calibre three inches, firing shrapnel shell, and

case shot. Five-inch breech-loading howitzers fire common shell with Lyddite bursters, also shrapnel shell, case shot, and star shell. Quick-firing guns are 4·7-in., 12-pounder, 6-pounder, and 3-pounder (Hotchkiss and Nordenfeldt). Machine guns, Nordenfeldt, Gardiner, Maxim, and Gatling.

Garrison artillery guns are R. M. L. 64-pounder, 80-pounder, 7-in., 9-in., 10-in., 10·4-in., 11-in., 12-in., 12·5-in., 16-in., 17·72-in.; Breech-loading 4-in., 5-in., 6-in., 8-in., 9·2-in., 10-in., 13·5-in., 32-pounder S. B.

All batteries of horse and field artillery are being converted with rapidity to a quick-firing system, the issue of converted batteries having already begun, and all newly-constructed field guns will be of a quick-firing type, so that the term will soon become obsolete. The designs chosen are those of Messrs. Vickers, Son and Maxim of Sheffield and Erith, and probably the first army corps at least will be armed with the entirely new gun, with which firing may be regulated to almost any rate required. In consequence of the increased rate of firing, provision is being made for a larger supply of ammunition and wagons. In the matter of quick-firing guns the navy has this advantage over the army, that a few shots more or less, to find range, etc., make little difference when you have the magazine of the ship to fall back on, but every shot wasted by the Royal Artillery means another shot to be obtained from an, in action, necessarily hard-pressed supply—hence, quick-firing gun or no, quiet, accurate shooting will still be the essential thing.

"*Siege Trains* will consist of any number of units of heavy, medium, or light ordnance, according to the requirements of the service, each unit consisting of sixteen pieces and of eight garrison battalions, with 500 rounds per gun, and stores in proportion."—*Soldier's Pocket-Book.*

Royal Engineers.

Engineer officers are educated at the Royal Military Academy, Woolwich, and the School of Military Engineering, Chatham. The corps comprises bridging battalion, telegraph battalion, balloon section, fortress companies, submarine companies, railway companies, etc. The chief officer of the corps on the headquarters staff of the army is the Inspector-General of Fortifications and Royal Engineers, whose name describes his functions. On mobilization four field companies of Royal Engineers are attached to each army corps, one company being for corps engineers, the other three companies for the three infantry divisions. Each company has tools, explosives and technical equipment.

Royal Engineers in India.—There are 340 Royal Engineer officers serving in India, and thirty subalterns under instruction in England for such service. These officers are employed in various staff appointments, in the departments of military works, public works, survey, railway works, etc., and in superintending the local sapper and miner battalions.

Strengths are very various. The war strength of a field company may be one major, one captain, four subalterns, eight sergeants, two trumpeters and buglers, 200 rank and file, sixty-nine horses, thirteen vehicles.

Uniform.—Scarlet, blue facings.

Army Service Corps.

Duties—(1) to hold and issue rations for men and horses; (2) to provide transport. The corps is employed at home and in the colonies, but not in India. The administrator of the corps is the Quartermaster-General.

Organization.—The Army Service Corps is a nucleus 4884 strong, with a reserve some 2600 strong. There are thirty-eight companies, and "A," re-mount company at Woolwich, "B" re-mount company at Dublin. The thirty-eight companies are thus distributed—thirteen at Aldershot, including the transport depôt, the supply company, and the supply depôt, seven at Woolwich, four at the Curragh, four at Dublin, one each at London, York, Dover, Chatham, Colchester, and Shorncliffe, two each at Devonport and Portsmouth. For further details see facing p. 61, "Proposed Distribution of Regimental Establishments."

Duties in war.—The peace company is the unit of expansion. With an army corps in a foreign country would be—three companies at the base; two on the line of communications; one at the advanced depôt charged with supply service; also fourteen companies serving with units of the fighting force, supplying transport to field hospitals and bearer companies—two bread-making companies; twenty-two companies in all, supplemented by hired transport.

An Army Service Corps company with an army corps has 266 officers and men, 345 horses including officers' horses, and sixty-six vehicles, four of which are two-horsed, the rest four-horsed.

It may be convenient to say here that the total vehicles of an army corps on war establishment are 332 two-horse carts, 978 four-horse wagons, and 328 six-horse wagons.

For home defence, transport of stores to main depôts is done by contract, but the Army Service Corps distributes the stores among the fighting units, thirty-seven companies being required for this purpose.

Uniform.—Blue, white facings.

Medical Corps.

By Royal Warrant in March 1873, Mr. Cardwell being Secretary of State for War, the regimental system was abolished, and in 1889 the new system was extended to the household troops. These and other changes, for better or worse, have produced the Royal Army Medical Corps, whose officers rank as officers of the army with similar titles. For details of numbers at home and in the colonies, see facing p. 61, "Proposed Distribution, etc."

Strength of bearer company sixty-four officers and men, including three medical officers; of field hospital, forty-six officers and men, including four medical officers, the highest being a colonel. Bearer company riding horses, four. Field hospital riding horses, six. Bearer company wagons and carts, fifteen (twelve being four-horsed). Field hospital wagons and carts, ten (six being four-horsed).

Transport attached from the Army Service Corps includes fifty-eight draught horses for bearer company, and thirty-six for field hospital.

Uniform.—Blue, white facings.

Medical Duties in War.—A medical officer accompanies each unit. Two trained stretcher-bearers accompany each troop or company. A bearer company and field hospital are attached to each brigade, a field hospital to each division, ten field hospitals and six bearer companies to each army corps, exclusive of regimental aid.

Dressing stations are 1500 to 2000 yards from the fighting line. From the dressing station wounded are passed by road or rail to the field hospital, thence if necessary to the base hospital, or, if distances are great, there is an intermediate step, the hospitals on the line of communications. Netley is the principal home hospital.

The Nursing Service.

This title recalls the memory of Miss Nightingale and the Crimea. The service may in a sense be said to have had its origin in the noble work of that lady and her devoted assistants. The service is divided into three grades:—

Lady superintendents.

Senior nursing sisters (or acting lady superintendents).

Nursing sisters.

Candidates must be over twenty-five and under thirty-five, producing a certificate of health, and evidence of three years' hospital training and service, etc. At sixty nursing sisters are retired on a pension, which may fall earlier if disabled on service.

Army Ordnance Department and Army Ordnance Corps.

Duties.—To issue, etc., munitions of war, etc. For numbers, etc., see facing p. 61, "Proposed Distribution, etc." General headquarters, Woolwich.

Army Chaplain's Department.

There are eighty-five chaplains, proportions nearly as follows:—sixty-three Church of England, fifteen Roman Catholic, five Presbyterian. Chaplains are divided into four classes, ranking with colonels, lieut.-colonels, majors, captains. Lowest age of entry twenty-seven, highest thirty-five.

Army Pay Corps.

Duties.—To receive and disburse money for military services. At every regimental depôt and important

military station is found the "station" paymaster, a combatant commissioned officer. Such officer receives moneys from the War Office, and issues them to the adjutants, etc., for distribution to captains of companies, troops, etc., who pay directly. He himself pays deferred pay, lodging money, etc. For numbers, etc., see facing p. 61, "Proposed Distribution, etc."

Army Veterinary Department.

Duties.—Control of infirmary stables, forges, etc. The officer is a departmental officer with military title, and intimate regimental connection. In India there appear to be four administrative officers, the principal officer being stationed at Simla.

The veterinary officer has a marked advantage over the civilian veterinary surgeon, in that he can enforce his rules; especially is this the case in the all-important matter of shoeing horses, wherein most reforms have had their origin in the army. The ignorant, brutal hacking of the horse's hoof is, thanks to the veterinary officer, very slowly dying out. His aim is also to destroy the cruel, silly, disgusting docking of horses' tails, but his light has not yet spread to horse breeders and ladies' coachmen; nor has he persuaded the coachmen to loose their bearing reins, and let the poor horse carry his head in his own graceful, natural way, instead of having it forced back on his spine, or carried like a sheep's head.

CHAPTER V

THE INDIAN ARMY

HISTORICAL SKETCH, PROBLEMS OF RULE, ETC.

IT is impossible in the space at disposal to say more than has been said already about the reserves of the regular army and the volunteers, but a page or two must be allowed for the slightest sketch of the Indian army, itself in several senses a veritable reserve. Even more, perhaps, than is the case with regard to other countries, the history of India and of her offensive and defensive forces depends upon her geographical position. India is cut off, almost like an island, from other lands, is approachable by land only from one quarter, and has now for centuries been in the hand of that power which commands the sea. Every historic invasion of India has been either from the direction of the famous north-west passage, the Khyber Pass in Afghanistan, or by sea. The Mussulmans came that way in 1398, the Moguls in 1738, the Mahrattas in 1761; but when Vasco di Gama sighted Calicut on May 11, 1498, he introduced a new factor into Indian politics. Since then the invasion, whether for purposes of trade or conquest, has been by sea; the Portuguese came by sea; the Dutch and French came by sea; the English came by sea, and, so long as the English hold the sea, England will hold India. So then the problem of the defence of India is primarily a sea problem; only secondarily a land problem, and as a land problem it is peculiarly connected with that north-western passage to which I have referred.

India, as Sir John Seeley points out, is linked to us by

no natural tie—religions are other than ours, races are different, even our rule, defending as it does the poor and the for ages oppressed against the strong and wealthy, their natural oppressors, is to that extent against us. Famine and plague have always been the natural scavengers of India, but we control famine and plague. On the other hand, the diversities of race and religion in the native army are much in our favour, and, moreover, we provide the fighting races with that which is their very life and reason of existence, plenty of fighting. Several of these races care little whom they fight with, so long as they fight. A well-known war correspondent told the present writer that in one of the little frontier campaigns, marching alone for sixty miles through country where fighting was going on the day before, he suffered no molestation. The hill-men, who twenty-four hours ago had fought so gallantly against us, were now ready to fight on our side, an experience common also in regard to the natives of the Soudan.

The material advantages of British rule to India are fairly obvious. In India the State is the universal land proprietor, at the present time collecting revenue either from the land-holder or the cultivator with a fairness never known before. Since 1859 over 17,000 miles of railway have been opened, and, on the whole, the *pax Britannica* has been maintained. The need for defence too is unhappily obvious enough. The steady, rapid advance of Russia towards the north-west compels a gradual increase in our forces. India can no longer be held free from external danger. Happily, however, the plan of frontier defence devised by Sir Donald Stewart in 1885 is now practically complete. But we still advance, and Russia does the same. Neither State can help herself. Each must keep her powder dry.

Scheme of Indian Army.—The proportion of natives to Europeans laid down after the Mutiny of 1857 was not to exceed two to one to three to one in cavalry and infantry, while practically all the regular artillery was to be European. These proportions are fairly maintained, for while the native forces number about 148,000, British forces are estimated this year at 73,157.

Organization of Native Army.—The native army comprises forty cavalry regiments, 133 infantry battalions, thirteen artillery batteries and companies (mostly mountain batteries), twenty-two or more companies of sappers and miners (including a submarine mining company), etc.

The Royal Commission of 1859 recommended that different nationalities and castes should, generally speaking, be mixed promiscuously through each regiment. This principle appears to have been abandoned. Companies and troops have in any case usually been composed of one class only.

Establishment of Native Army.—The usual establishment is:—

Cavalry, four squadrons. British officers, ten (including medical officer); natives of all ranks, 625.

Infantry, eight companies. British officers, nine (including medical officer); natives of all ranks, 832 to 912.

Artillery, six 2·5-inch R. M. L. guns (screw guns). British officers, four; natives of all ranks, 256.

The *unit* in infantry and cavalry is the company and troop respectively.

The detail of natives in infantry regiments is much as follows:—eight subadars, eight jemadars, forty havildars, forty naicks, sixteen drummers, and remaining rank and file.

The principle underlying the appointment of *British*

officers is that they should be approved, and occupy a position of some dignity. Cadets who have chosen the Indian Staff Corps on passing into Sandhurst, serve a year with a British regiment in India on quitting the college, then pass to the Indian Staff Corps, and are appointed to a native regiment. Supplementary appointments to the Staff Corps are made from the army.

The *modern system* aims at a further development of class companies and even regiments, the classes depending partly on religion, partly on caste, partly on race, the object being to have men of the same religion, caste, race together.

On April 1, 1895, the presidency army system was abolished, and under the new system four army corps have been created, namely, the Punjab, Bengal, Madras and Bombay armies, the British troops stationed within the borders of each command being reckoned on the strength of that command. These commands are divided into twenty-nine first and second-class districts. The finest fighting men are perhaps the races of the Punjab, including the Sikhs, and the famous little Ghurkhas, whose regiments recruit from the highlands of Nepal, etc.

Defence.—The north-western frontier defences have been completed. The fortifications include the lines of Quetta, and the defence of the bridge-heads on the Indus at Sukkur and Attock, together with the series of forts at Rawal Pindi.

Arms.—Horse and field batteries have the twelve-pounder breech-loading guns; British infantry the Lee-Metford; native troops the Martini-Henry. Small arms ammunition and steel projectiles are now manufactured at Cossipur and elsewhere.

Re-mounts.—Imported horses are mostly Australian

walers, also some Persians, Arabs, and half Arabs. To improve native horses Government stallion establishments have been instituted, where approved native mares are served without fee, also prizes are offered to native breeders. Amongst stallions are walers, English thoroughbreds, Norfolk trotters, etc. British mounted officers usually purchase walers as chargers at the Government re-mount depôts. The rank and file of native cavalry regiments depend chiefly on native resources. Re-mounts are usually bought at horse fairs.

Transport.—Regimental transport exists; army transport hardly, except on the frontier in the proportion of one-half. Pack animals are in regimental charge. In the Tirah operations 74,000 animals were employed. Everything practicable was admirably done, but the strain was very severe, owing to deficient peace system.

Tirah Expedition.—The force under Sir William Lockhart numbered approximately 1000 British officers, 10,800 British troops, 490 native officers, 22,000 native troops, perhaps 23,000 followers and hospital attendants, clerks, etc., 8000 horses, 18,000 mules and ponies, 1440 hospital ponies, 45,000 or more animals on lines of communication, etc. Of this expedition little, comparatively speaking, strangely little relatively with its importance, was known in England at the time. The war correspondent was not present; he seldom is in India. And shortly afterwards the Nile campaign, fully reported, and perhaps more important from an imperial point of view, but from a military point of view less trying, obscured the imperfect tale of that remarkable expedition. Considering the large number of troops employed, the heavy and lamentable loss in lives of young British officers, the splendid fighting qualities shown by British, and even especially by native

regiments, the attention attracted to this campaign was grievously inadequate. That such a campaign, successful though it was, should have been required for such purposes cannot but teach a lesson to thoughtful persons, and arouse an uneasy suspicion of frailness of tenure of power in certain directions, together with a settled view of the need for constant and complete preparation for war throughout the Indian armies.

SUMMARY OF ANGLO-INDIAN FORCES.

British troops (for detail see "Proposed Distribution, etc.," facing p. 61)	73,157
Volunteers (European and Eurasian) . . .	30,000
Native army	148,000
Reserves of native troops, including imperial service troops	20,000
Total . .	271,157

But this total takes no account of the large armies of native States. The regular troops of such States are often well drilled. The modern policy is to bring such forces more under imperial control, apparently with the ready consent of native princes. This tendency will gradually decrease the armies under purely native rule. The loyalty of native princes has been proved lately on several occasions, and it is expected and believed that in case of invasion of India loyal support would be received from their forces.

Cost of the army.—The average cost of the Indian army may be put at over 200,000,000 rupees, or, perhaps, £15,830,000.

CHAPTER VI

THE MARCH

LENGTH of pace 30 inches; at the double, 33 inches; short, 21 inches.

Slow time, 75 paces a minute.

Quick time, 116 paces a minute = 3 miles 520 yards per hour.

Double time, 165 paces a minute = 5 miles 275 yards per hour.

Cavalry walk 4 miles an hour, trot 8 miles, gallop 12 miles.

The average rate at which infantry march per hour is $2\frac{3}{4}$ miles, cavalry 5 miles, field artillery $3\frac{1}{2}$ miles; but in divisions infantry march $2\frac{1}{4}$ to $2\frac{1}{2}$ miles, and in corps two.

Average march for infantry 12 to 15 miles a day, with a halt every four to six days. The 15 miles take about eight hours, including an hour's halt.

Trains can march (at three miles an hour) 20 miles a day when full, 28 when empty.

The order of march for trains is usually as follows :—

1. Reserve ammunition column.
2. Ambulances and field hospitals.
3. Provisions for day's supply.
4. Baggage in order of march.
5. Commissariat provision columns, field bakeries, etc.

Order of march of Army Corps depends on circumstances, nature of ground, etc.; the normal order might be, advanced guard, interval of one to two miles—main body—train —baggage column. Where possible roads parallel to

railways are used, the railways being used for supplies. In open countries like India the advance can be laid down on paper.

Choice of roads.—Softest to cavalry; best to artillery; shortest to infantry.

Advanced guard is about one-sixth of the total force, and consists, when the body of troops marching is considerable, of part of all arms of which the main body consists.

The line of march is protected by the advanced guard, the rear guard and troops on the flank. The rear guard is formed on the same principles as the advanced guard.

Billeting of troops in the United Kingdom is illegal, except in inns and livery stables. Troops may not be billeted except on the march. To carry tents is inconvenient. Schools, churches, public buildings, etc., could generally be hired or used, and probably the public would voluntarily offer assistance. Napoleon preferred the bivouac to tents, and, in Lord Wolseley's opinion, bivouacs are in fine weather more healthy than tents, besides the inconvenience to mobility of carrying tents. Lord Wolseley holds that armies moving in Europe cannot have tents. They must therefore be billeted or bivouac. Plenty of wood and water in the neighbourhood of a bivouac are generally essentials. In cold weather woods are the warmest place for a bivouac. In tropical climates bivouac in the open. Sleep is *the* essential, and, speaking from personal experience, the writer suggests that gravel and small stones where obtainable are the best materials on which to bivouac. Sand contains nipping and biting insects. Woods hold mosquitoes. On the other hand, to sleep you *must* be warm: hence the need of some sort of waterproof bag or sheet in which to sleep. Once in a

waterproof bag in ordinary weather little outside heat is required. Even if it leaks and you get wet it matters comparatively little so long as you keep warm. To add to comfort throw up a few sods, or a slight sand-bank against the wind.

Cavalry and *Artillery* should bivouac with clear ground in front of them, with horses picketed and men sleeping in front of them, cavalry being in open column of squadrons, Royal Artillery in line. *Infantry* may bivouac with a narrow belt of woods in front of them, to act as a screen from the wind and the enemy's notice.

Outposts are all-important. They should act as feelers and guardians of an army, and screen its movements. They comprise—

Piquets, including sentries, etc.

Supports.

Reserves.

Sentries should be double, and at night on low ground, so that enemies passing on high ground may be seen. At night they should be relieved every hour. Patrols should be sent out once between every relief during the night. Piquets should be relieved shortly before daybreak, since attack is probable at that time, and the relieving piquet affords extra strength. The officer in command of the retiring piquet should explain and point out all needed to his successor.

General.—Attention to boots, socks, and clean feet, together with plenty of marching practice, and, generally speaking, the utmost possible attention to clothes, food, and health, mean good quick marching. Good marching and good, low, steady shooting mean victory.

CHAPTER VII

DRILL AND TACTICS

Drill.—"In respect to battalion and brigade evolutions required during an action, the worst militia regiment could do enough for all practical purposes."—*Soldier's Pocket-Book.* But Lord Wolseley points out that drill is needed for its disciplinary and moral effect. Details of drill would be out of place here.

Tactical units are one man's command. In the English army these are the company, squadron, battery, battalion, regiment, brigade, division, army corps. Tactical evolutions are in close and extended order. Thus when marching the main body is in close order (column of route), the advanced guard and flankers in extended order.

Napoleon would not admit of rules for order of battle. Some general principles, however, may be mentioned. The preparation is the most important stage.

In attack *artillery* prepares the way, attacking first artillery, subsequently infantry; the mass of this arm should therefore be at the head of the main body on the march when near the enemy. Artillery also covers retreat. With the new gun it may become necessary to reduce batteries to four guns in order to the keeping up of a constant supply of ammunition, and to quiet, controlled fire, and, above all, rapid, dependable ranging. In regard to the distribution of field artillery, the tendency is to distribute corps artillery among the divisions.

Cavalry manœuvres at the trot, charges shaken infantry and batteries in flank, covers infantry retreat, pursues a beaten enemy giving him no rest, above all, acts as a screen

to its own army, keeping ever in touch with the enemy, hiding the movements of its own forces, communicating the movements of the enemy's. The principal effect of the cavalry charge is to demoralize. A reserve should always be retained, especially when cavalry charges cavalry. Cavalry should be used on the field in as large bodies as possible. Cavalry can only charge in line. To charge in column exposes a deep formation to fire, while the value of the charge is only in proportion to the front. The cavalry leader must have the disposition of the accompanying horse artillery. The tendency is to separate the cavalry from intervention in the artillery and infantry fight. Opportunities for successful cavalry attack will be few. Everything depends on these opportunities being seized on the instant. Hence the need for sufficient peace training on adequate ground. A cavalry leader needs as much nerve and dash as a British admiral. He should therefore be young.

Infantry fights as skirmishers, in position in line, advancing in line, in square to receive cavalry, etc. The problem is, how to get within charging distance without being destroyed. The question of company supports has been noticed elsewhere. England and most other countries still keep them. In France and Russia they have been provisionally abandoned. Quiet in preparation and development of the fight is the first essential. Tactical training must be based on (*a*) intelligent training of the individual, (*b*) (that which wins the battle) intelligent tactical training of individuals acting in mass. The simpler the orders the better. Things develop. The frontal attack of strong positions by infantry still forms the substance of battles, and too much attention must not be paid to loss, which is hardly likely with modern loose formations to be

so heavy as in some past periods. Controversy is unsettled as to (1) the method of advance, (2) the distance at which infantry fire should commence, (3) volley firing *versus* individual firing, (4) the position of final fire.

In regard to (1), and speaking very generally, a closer formation in advance means better control, a looser formation less loss from fire. In regard to (3) much the same arguments are applicable.

CHAPTER VIII

DEFENCE, INCLUDING MOBILIZATION

Mobilization.

A MOBILIZATION scheme for this country must necessarily be complicated. It must provide for (*a*) the mobilization of all forces, (*b*) the mobilization of a small force for a little war in some remote part of the world; but the greater scheme to some extent includes the less. Only the slightest possible sketch of either scheme can be given.

The Field Army must in any case consist of the more highly trained troops. When all the forces are mobilized, auxiliary forces (militia and volunteers) will be allotted to garrisons, especially at the ports; the number of regulars allotted to garrisons will necessarily be small.

In no country will the forces mobilized represent an ideal; but in England more than in any country, owing to our Volunteer system, we have to deal with, in great part, forces deficient in organization, supply services, etc. The Field Army will consist of three army corps and

four cavalry brigades, with behind them perhaps thirty-three volunteer infantry brigades and eighty-four volunteer batteries. The cavalry brigades and first and second army corps are regulars. The third army corps consists of regulars, militia, and volunteers. The yeomanry, organized in brigades, is attached to infantry brigades or divisions of the field army.

Stores.—Personal equipment of reservists is stored, as a rule, at the place of rejoining. Steps are being taken to decentralize articles of clothing and necessaries from the Pimlico Clothing Department, and to store them at the places of rejoining.

Station equipment (ammunition, etc.) is stored at the place of mobilization of a unit. *Regimental supplies* are issued to units from the stock in the regimental district. *Medical and veterinary* stores are kept partly in districts and partly at Woolwich, and will be issued accordingly.

Personnel.—Reservists of cavalry and infantry rejoin at the depôt; artillery, including ammunition columns and parks, Royal Engineers and Army Service Corps (Transport), at the place of mobilization of the unit; militia reservists (if wanted for army service) at the depôt of the unit which they are eventually to join.

Horses.—The re-mount department collects registered horses at, and issues them from, pre-arranged centres.

Foreign Expeditionary Force.—For this purpose about 20,000 men are detailed and liberally equipped. The bulk of the force is at Aldershot, and equipment is divided between Aldershot and Southampton, the bulkier portion being kept at Southampton.

Imperial Defence.

In the case of the British Empire, Imperial defence is mainly a naval matter. It is not in the main a defence by means of garrisons and fortresses, but a defence by means of naval attack and blockade. It is necessary, however, that certain positions and coaling stations should be able, for a time at least, to defend themselves, either by themselves, or, under certain circumstances, in conjunction with local or imperial naval support. Imperial garrisons are maintained only at strategic points or coaling stations. The following are the principal coaling stations and defended ports; for convenience' sake, numbers with expressed meanings are attached to the names:—

1 = British Imperial forces
2 = Imperial local forces } Defended by.
3 = Colonial local forces
4 = Coaling stations, Imperial.
5 = „ „ Admiralty.
6 = „ „ Colonial.
7 = Ports defended imperially in India and colonies.
8 = Ports defended colonially in colonies.

Note.—Imperial troops have been withdrawn from Australasia and Canada, except Halifax, but Imperial armaments have been provided for the positions of King George's Sound and Thursday Island, since their importance is partly Imperial; the garrisons and works are provided at the joint cost of the Australian colonies. A like arrangement has been entered into with Canada in regard to Esquimalt.

List:—Gibraltar, (1) (4).
Malta, (1) (2) (4).
Cyprus, (1).
Alexandria and Cairo, (1).
Aden, (1) (4).
Karachi, Bombay, Madras, Calcutta, Rangoon, (7).
Trincomali, Colombo, (1) (2) (4).

Penang, (1).
Singapore, (1) (2) (4).
Labuan, (4).
Hongkong, (1) (2) (3) (4).
Wei-hai-wei, (1) (2).
Thursday Island and King George's Sound, (4), but see Note above.
Adelaide, Melbourne, Sydney, Newcastle, Brisbane, Townsville, Hobart Town, Dunedin, Lyttelton, Wellington, Auckland, (8).
Mauritius, (1) (2) (4).
Durban, (8).
Simon's Bay, (5).
Cape Town, (1) (4).
St. Helena, (1) (2) (4).
Ascension, (5).
Sierra Leone, (1) (2) (4).
Esquimalt, (1) (3) (5).
Halifax, (1) (3) (4).
Bermuda, (1) (3) (4).
Jamaica, (1) (2) (3) (4).
St. Lucia, (1) (2) (4).
Falkland Islands, (5).

In the United Kingdom all the principal ports are more or less defended, and are under the control of the military authorities. These include Chatham, London, Hull, Newcastle, Leith, Aberdeen, Glasgow, Belfast, Liverpool, Cardiff, Bristol, Plymouth and Portsmouth, and will include Dover. But except Portsmouth, and perhaps Plymouth, few of these can be styled fortresses. Portsmouth is probably the best specimen of a fortress to be found in the United Kingdom.

CHAPTER IX

GENERAL

War correspondents.—Though Slatin Pasha thinks that the Sirdar wants a rest from war correspondents for a while, it is hard to see what serious risks can have been incurred by their employment in the Soudan. Besides, advertisement is in these days the essence of success. But in any case the war correspondent must be a nuisance to the General in command, and a heavy burden to the department which supervises and controls his despatches; and in the case of a European war, correspondents would in these days be a dangerous nuisance, unless strictly limited in numbers, and unless all or most of the persons employed were of proved discretion. The personal honour and the patriotic feeling of the English war correspondent are usually above suspicion, but he may be young, and ignorant of war. In such case he is liable to make disclosures, which in the hurry of important work may escape the blue pencil of the censor.

But it is probable that the known dislike of war correspondents by Generals in command is due to personal rather than to patriotic grounds. Generals, like other men, are liable to make mistakes, mistakes in field operations, and mistakes in personal conduct. A war correspondent who makes himself the medium for transmitting home the grumbling of the camp, or who sets himself to criticize the moral conduct of this or that commander on particular occasions, may do much mischief. Even if he is prevented from so doing in his despatches, he may do

much harm by loose conversation in society; by gossip at the clubs, by magazine articles, and so forth. Speaking with diffidence, one would say that the correspondent should hold himself bound, generally speaking, by the laws of honour which prevail amongst soldiers themselves, both during a campaign and subsequently, and such has usually and happily been the rule of conduct amongst the representatives of the English Press. There may be instances, as in the memorable case of the Crimean War, when it becomes his duty to speak out in the interests of his country, or of humanity, but it must seldom be desirable for a correspondent to pronounce criticism when the operations of a campaign are successfully conducted. And if he should avoid impertinent criticism, he should too avoid fulsome adulation. There have been generals before the generals of this day, even Wellington and Marlborough, and others. On the whole, it would seem to the layman that the work of the correspondent is mainly to record news, and get the news as quickly home as possible, and that this is generally recognized and generally done by our gallant, nimble-minded and artistic pressmen.

Marksmanship: Fire Control and Fire Discipline.—The annual report on musketry instruction for the year 1898 is a document of extraordinary interest. It is not too much to say, that the safety of our country depends on the gun shooting of our navy and the rifle shooting of our army, and hence it is good to hear that, just as shooting in the navy has now reached a high level of perfection, so the commandant of the School of Musketry is able to declare that, "judged by the standards now prevailing in continental armies, the results obtained are certainly most encouraging." Colonel Hamilton adds that, "whoever

our enemy may be, the marksmanship of our men may in the future be relied upon to compensate to a very great extent for our presumptive inferiority in numbers." This is strong language, doubtless well weighed, and should be well pleasing to the heart of the Commander-in-Chief, who has steadfastly maintained that, with our practically long-service army (as compared with continental armies), we ought to be able to turn out a better soldier than they can turn out.

Fire Discipline is also held to be good. Men obey orders smartly, adjust their sights correctly, aim at the object designated, fire clean volleys, and cease fire instantly on the sound of the whistle. But *fire control and direction* come in for some severe criticism, and it is best to quote Colonel Hamilton's own words :—"Frequently when I hear fire being opened I also hear officers giving wrong words of command, which are passed uncorrected by the responsible senior present. Even when the actual words are correct, and are delivered in the proper sequence, they are often uttered in a hesitating and uncertain tone. No good drill of any sort is conceivable unless the words of command issued are authoritative and unmistakable. But still more is this the case when fire drills come into question." And he adds :—"Slowness in opening fire is the gravest evil against which musketry has now to contend, and bad, inconvenient, hesitating words of command are at the root of this evil."

With regard to the Militia, the commandant states that, judging from the recent manœuvres, "the Militia sometimes challenges comparison with regular battalions in drill, discipline, and marching power, but that in such matters as judging distance, fire direction, fire control, and fire discipline they seem twenty years behind the times."

He adds that the militiaman is a fair individual shot at a fixed target so far as can be ascertained, and believes that he would therefore well repay greater proficiency on the part of his company, half company, and section commanders.

As to the volunteers, it is pointed out that most of them have had no training in the practical handling of their rifles at the distances and under the conditions of modern warfare. Proposals to remedy these defects are under the consideration of the Government.

The whole report is of great, though possibly not of exceptional interest. The condition of things as regards the army is on the whole satisfactory, and, as regards the auxiliary forces, on the whole unsatisfactory. For their defects these forces are certainly not altogether to blame. Especially in the case of the volunteers, who give so much to the country, and from whom the country begins to expect so much, more will have to be done by the country. The volunteer cannot be expected to give much more than his time to the service of his country. He is entitled to ask for efficient ranges, efficient weapons, means of transport, etc. Sensible volunteers will recognize that volunteering is not play, and that, if their legitimate requests are granted, they must prove themselves of increasing value. There seems considerable prospect of Government granting more to, and asking more from, volunteers in the years to come.

The Soudan expedition has given this country a striking object lesson in the advantages of due preparation for a campaign. So complete a preparation as that in the Soudan, with such extraordinary neglect on the part of the enemy to avail himself of opportunities, especially in the final phases of the war, can seldom occur again; but

all must recognize the memorable work of the formation of the Egyptian army, and the rapid yet efficient construction of the railway under severe and endless difficulties, as facts redounding to the credit of our race, equally with the admirably conducted battles, especially that of Omdurman, with its notable and terribly destructive fire discipline.

The Indian Army.—It has been entirely impossible to do anything like justice to the Indian army in the time and space at my disposal. It seems to me, if I may venture to say so, that the two essential thoughts always to bear in mind in regard to that army are these:—(1) how valuable an assistance the native army might be in a great imperial crisis; (2) that when we have estimated the cost of our armies at home, we have not approached the limit of imperial expenditure on armies, for we have yet to consider the expense of the English army and of the native army in India. There is that further thought to which I have before referred, the risk attaching to any disproportionate increase in the native army.

A comparison of English army administration with that of other Powers, inclines the writer to the belief that our methods are rather scrappy and tentative. The power and completeness which are obtained at the head of affairs in the case of more autocratic forms of Government are lacking, and it appears that a general view of the army, or armies, as a whole is seldom or never taken by some one person of authority sufficient to say, this or that must be done, this or that system must be followed. Similar criticism has often been passed upon our whole imperial and political life, and the further elimination of the civil authority together with the adoption of a stricter system for war,

might lead this country, as it has led other countries, to the dangerous evil of militarism; yet it can hardly be denied, that States possessing simpler and more complete schemes of military organization for war and peace, together with a firm, experienced, and knowing control at the head of affairs, should possess a great advantage in war.

Budget 1897–8.

Receipts . . .	£106,614,000
Expenditure . .	102,936,000

Budget 1898–9.

Revenue . . .	£108,336,000
Expenditure . .	108,161,000
Surplus . .	175,000

Budget 1899–1900.

Estimated Revenue .	£111,157,000
Estimated Expenditure	110,927,000

But, in order to provide the needful revenue, £900,000 is raised by further taxation, and the great sum of £2,000,000 is withdrawn *permanently* from the fund for the redemption of debt.

Army Estimates 1898–9, £19,220,500. Probable expenditure on account of 1898–9, including £766,000 prepayment in 1897–8, £19,986,500.

The net total of the Army Estimates for 1899–1900 amounts to	£20,617,200
Adding for the cost of the armies in India a total of perhaps	16,000,000
	£36,617,200

We reach the enormous sum of over £36,600,000, but no account is here taken of colonial expenditure, etc., and it is probable that the total expenditure on armies throughout the empire and its dependencies for 1899—1900 will be not less than £40,000,000.

THE FRENCH ARMY

Population 38,518,000

INTRODUCTORY NOTE

DURING the past year the attention of Europe, and especially of England, has been constantly directed to the French army. In the old days the king was the State, and is still here and there; for some time past it has been evident that in France at least, if not elsewhere, the army is the State.

During the tumultuous times of General Boulanger the present writer asked a friend who was well acquainted with the facts, "How is it that this man, with no historic name, a man not apparently of first-rate ability, and representing no principle of government, has got such a hold upon the imaginations of the people?"

"Well," replied my friend, "Boulanger has done a great deal for the common soldier, and you have got to recollect that every family in France has one or more of its members connected with the army. It is something when the daughter of the house says—'Ah, that's the man who sent my sweetheart home to me,' when every mother hears from her son how his material comforts have been improved by the action of the General."

There seems little doubt that had Boulanger possessed the usual courage of the adventurer he might, for a time

at least, have upset the Government, and the power and influence of the army have even increased since his miserable death. Meanwhile the wretched Dreyfus disclosures in all their details and ramifications have shaken to their foundations French confidence in their rulers, political and legal, and France is ripe for a military despotism. Her debt has assumed the frightful proportion of over £1,280,000,000, double that of England, a richer country.

With a monstrous load of debt, an almost stationary population, an overwhelming military despotism, and adventurous politicians who vie with one another in corruption and imbecility, France stands trembling on the brink of bankruptcy and a military revolution. The *carrière ouverte aux talents* has been tried once more, and failed again. Hard though it is on capable ambition to be restrained from political advancement by lack of means or position, it seems best at present, in the interests of the various States, that talents apart from the wealth and position which give them stability should fail to find public favour. Sacrificed towards the end of the eighteenth century by birth and money, France at the close of the nineteenth sorely needs a leisured plutocratic aristocracy to restore the balance of things.

CHAPTER I

WAR ADMINISTRATION AND SERVICE

WAR is declared by the President of the Republic with the consent of the Senate and the Assembly.

Administration.—The affairs of the French army are administered by the War Ministry and the Staff, through their committees and bureaux. The Staff is not independent of the Ministry.

The War Ministry consists of the Minister, his Cabinet (two members) and special staff. All the above are soldiers save two, namely, a Naval artillery officer and a Keeper of the Records. The Ministry has three bureaux, which are composed of civilians, and a large number of committees and commissions, composed, generally speaking, of army officers, and where needed medical officers. There is, however, a mixed Commission of Public Works, which includes Naval officers and civilians as well as officers of the Army.

The first bureau of the War Ministry is concerned with the opening of despatches, confidential affairs, registration, etc. The second bureau undertakes general correspondence, matters connected with decorations, including the legion of honour, and with the *personnel* of general officers, the organization of the various committees and commissions, discipline, employment of retired soldiers, drawing up reports for the President of the Republic, etc. The third bureau is concerned with the *personnel* of the central administration, with the salaries of subordinates, with the central medical administration, etc. A Surgeon-Major of

the first class has charge of the section of this bureau concerned with the central medical administration of war.

Of the committees and commissions the principal is the Council of War, presided over by the Minister, who, at the time of writing, is assisted by ten Generals of Division (including the Military Governor of Paris and three army corps commanders), and also by the chief and sub-chief of the Staff.

The Staff is presided over by a General of Division, who is chief of the Staff, and includes for general purposes three other superior officers with their subordinates. It acts through sections, bureaux, and special services, and is concerned with organization and mobilization of the army, foreign armies, instruction, railways, geography, etc.

Service.—Service is obligatory, and lasts for twenty-five years from the twentieth year, namely, three years in the Active Army, and ten years in its reserve, six years in the Territorial Army and six years in its reserve. All the above conditions are not always strictly observed. The law of July 15, 1889, practically abolished legal exemptions, but not far short of one-seventh of the annual recruits are postponed, for a time, in any given year.

Recruiting.—Including those postponed from previous years, the annual number of men liable to service is about 400,000. Deducting those postponed (perhaps 50,000), and those allotted to the auxiliary services, about 230,000 recruits remain for the standing army. Of these about 69,000 serve in the standing army for one year, and 161,000 for from two to three years.

Besides the above, about 16,000 volunteers join the home army, and 5000 volunteers join the army in Algeria annually.

Training of Auxiliary Forces.—The *Reserve* of the Active

Army is called out by yearly classes, two classes being called out annually for twenty-eight days. During their service the men of the *Territorial Army* receive a few days' training, perhaps a fortnight in all.

Table of Classes to be called out in 1899 and 1900.

	To be called out in 1899 (Annual Classes.)	To be called out in 1900 (Annual Classes.)
For periods of instruction—		
Those dispensed with in . . .	1895[1]	1890
Reserve of Active Army. All Arms	1887	—
	1889	1890
	1892	1893
Algerian and Tunisian Contingent .	1889	1890
	1894	1895
For periods of exercise—		
Territorial Army: Infantry, Cavalry, Artillery, Engineers	—	1884 and 1885
Territorial Army: Train, Clerks and Workmen, Invalids	1883	1879
For muster—		
Reserve of Territorial Army . .	1878	1879
Men of Auxiliary Services. All Arms	1878	1879
	[2]	1884
	1888	1889
	1892	1893
	1896	1897

Training of Officers.—There are in France twenty-three military schools. These may be grouped into higher schools and preparatory schools. Of the latter there are

[1] Except those of this Class who have already accomplished their second period of instruction in 1897.

[2] The Class of 1883 which should be mustered in 1899 has already been mustered five times.

seven, including the orphans' school at La Boissière. The highest school in the first group is the École Supérieure de la Guerre, which deals with such subjects as tactics, strategy, etc. It is worth noticing that at this school the languages taught are German and Russian, though there is only one professor of Russian, while there are four professors of German. German is taught at several of the higher schools, English apparently at none. The whole system of education is minutely and highly organized.

CHAPTER II

ORGANIZATION

Peace strength of the army.—Exclusive of 25,000 gendarmerie and Republican Guard, the peace strength of the French army may be estimated at 27,450 officers and 517,000 men, present and absent. In outline the detail of certain arms is as follows, and, for convenience' sake, horses and horsed guns are added :—

	Officers	Other Ranks	Horses	Horsed Guns
Infantry . .	13,380	353,200	7,370	
Cavalry . .	3,750	73,700	68,350	
Artillery . .	4,200	77,950	37,350	2,300
Engineers . .	970	12,800	1,440	
Train . .	410	7,750	7,860	
Total .	22,710	525,400	122,370	2,300

The above list includes troops in Algeria and Tunis. Included amongst *infantry* are 29,500 officers and men of

Rifles, and in Algeria 8900 officers and men of Zouaves. The famous African Discipline Companies, of which we have heard so many tales ever since the days of *Under two Flags*, appear not to number more than 1100 men, with sixteen officers. It seems not improbable that a somewhat similar system of military punishment may shortly be adopted in the English army. Amongst the *cavalry* are 4150 Chasseurs d'Afrique in Algeria, and 830 Chasseurs and 970 Spahis in Tunisia. Of *artillery*, field artillery takes 57,000 officers and men. The numbers given of horses and mounted guns are approximate.

Including gendarmerie, etc., the permanent army of France may be reckoned at a total peace strength, 570,000. *Total effectives* (Budget 1899), 557,000.

Estimates of the *war* strength of the French forces must be received with caution, as few details are available. The total forces of more or less trained men, including the reserve of the Active Army, the Territorial Army and its reserve, have been put at the figures given below :—

Active Army	570,000	of all ranks.
Reserve	1,320,000	„ „ „
Territorial Army and its Reserve	2,270,000	„ „ „
	4,160,000	„ „ „
Add (untrained men)	500,000	„ „ „
	4,660,000	„ „ „
Total war strength		4,660,000.

But this would not be the only force available during a long war. It is possible that in the case of a long-continued European war several million more untrained men would be called upon, and would receive some sort of a training to enable them to fill up the gaps in the territorial or other armies caused by the exhaustion of war.

Military districts of the Republic.—France is divided into eighteen *military districts*, to each of which an army corps belongs for purposes of mobilization, and, to a large extent, for purposes of recruiting. Each district contains approximately 2,000,000 inhabitants. There is also a nineteenth army corps in Algeria. Generally speaking, each district contains the principal elements of the staff necessary for mobilization, and the cadres of the troops of its territorial army, also recruiting dépôts, depôts for remounts, for supplies, clothing, etc. The whole of this detail is under the command of the General of the army corps.

Besides the army corps there are seven separate cavalry divisions; a division of all arms at Tunis; and several regiments and battalions of all arms in Paris, which belong to no army corps. One of the cavalry divisions is attached to Paris.

The army corps as a rule consists of two divisions of infantry (each of two brigades), of one brigade of cavalry, one brigade of field artillery, etc. But the sixth army corps located at Chalons sur Marne, which guards the north-eastern frontier of the Republic against the advance of Germany, consists of five divisions of infantry—comprising eleven brigades, two brigades of cavalry, two of field artillery, thirty-eight batteries of foot artillery, etc. Besançon and Lyons each have fourteen batteries of foot artillery.

The fighting strength of the army corps is about 25,000 infantry, 1200 cavalry, and 120 guns.

War organization of the army.—In peace and war the basis of the army organization is the army corps, which, generally speaking, is organized as follows:—

Corps head-quarters.

Two divisions of infantry.
Brigade of cavalry.
Corps artillery.
Artillery park.
Bridge train.
Engineer reserve company and park.
Head-quarters ambulance.
Field hospitals.
Head-quarters convoy.
Auxiliary supply convoy.
Reserves of clothing and equipment.
Re-mount depôt.
Field bakery.
Detachment of police.

CHAPTER III

FOOD AND FORAGE

THE food and forage regulations are very careful and minute. At home the men are provided daily with 26·50 oz. of bread, or a less quantity of biscuit-bread or biscuit, also with coffee and sugar. Sometimes the State provides meat, etc., but usually a money allowance is given instead, the amount being determined by the locality. Much the same regulations are in force when the army is on the march in France, but a payment of 2½*d.* is often made instead of the provision of bread.

The war ration is as follows:—

	Higher Ration.	Normal Ration.
Bread . . .	26·50 oz.	26·50 oz.
or biscuit-bread .	24·50 „	24·50 „
or biscuit . .	21 „	21 „

	Higher Ration.	Normal Ration.
Fresh meat . .	17·50 oz.	14 oz.
or preserved meat .	8·60 „	7 „
or salt pork . .	10·50 „	8·50 „
Dried vegetables or rice . . .	3·50 „	2·30 „
Potatoes . . .	26·50 „	15·75 „
Lard . . .	1·0 „	1·0 „
Condensed soup (on preserved meat days)	1·0 „	1·0 „
Salt	·7 „	·7 „
Sugar . . .	1·0 „	·7 „
Coffee (roasted) .	·90 „	·55 „

The higher ration is allotted during active service, the normal ration during all periods when fatigue is not exceptional. Supplementary rations amounting to half of either of the above rations may be allowed.

The *liquor* ration is either nearly half-a-pint of wine, or nearly a pint of beer or cider, or nearly one-eighth of a pint of brandy. The brandy ration would probably not be issued except by order of the commanding officer of the army, and might on occasion be supplementary to either of the other rations.

An hygienic ration of brandy is due in the north and centre of France from July 15 to August 31, and in the south from June 15 to August 31.

The *tobacco* ration for non-commissioned officers and men is rather more than $\frac{1}{3}$ oz. in peace, and rather less than $\frac{1}{2}$ oz. in war. In the field the officer is entitled to rather less than $\frac{3}{4}$ oz. of *caporal*.

There are regulations too minute to quote in regard to the supply of straw for the bedding of troops in tents or bivouacs, and also in regard to the supply of wood or coal for warming purposes. The amount of wood allowed to

heat the coffee is per man 1⅔ oz., and of coal or charcoal 1 oz. To cook meat, etc., the allowance when in camp or bivouac is 2 lbs. 3 oz. of wood, 1 lb. 1½ oz. of coal or charcoal. Officers have a double ration.

Forage.

The normal ration of oats per day is 11 lbs., of hay 6 lbs., of straw 8 lbs. In the field horses get about 12 lbs. oats, the same quantity of hay as above, but one-third less straw.

Rations carried by Troops in the Field.

	Days
Bread	2
Biscuit	2
Rice	3
Vegetables	1
Salt	4
Sugar	4
Coffee	4
Preserved meat	2
Condensed soup	2
Oats	2

Two days' cattle are driven with the divisional train, four days' cattle with the corps park, four days' cattle with the reserve park.

Supply, etc.

Officers and men transported by rail are entitled to three meals a day; one they provide out of their rations, the intendance provides the other two, and all ranks fare alike. All meals appear to be cold, and the meals provided at the appointed refreshment stations are as follows:—

4½ oz. of preserved meat.

⅛ oz. of salt.

½ pint of *hot* coffee mixed with brandy or rum.

On arriving at cantonments, troops are as far as possible supplied with bread by requisition or from depôts, so as not to infringe on the regimental supply of biscuit. Next to regimental supply comes the administrative convoy in two divisions of four *échelons*, and then the auxiliary convoy, also in four *échelons*. Each *échelon* consists of seventy-five vehicles.

The supplies of the first line for an army corps are in all enough for eight days.

Supplies in the rear, except cattle on foot, are stored in the railway station depôts, and issued as needed to magazines and field bakeries.

Requisitions.

Both at home and abroad these are conducted with great order. During the Franco-Prussian war the writer recollects requisitions in France, both by German and French troops. In either case admirable order was preserved, and the hardship was slight in outlying districts. Requisitions by French troops can only be carried out *by force* after sound of drum and direction given to all good citizens to retire, and then only in certain definite cases which amount to a practical impossibility of obtaining them otherwise.

CHAPTER IV

THE ACTIVE ARMY

INFANTRY.

Organization.—There are 145 sub-divisional and eighteen regional regiments of infantry, and thirty battalions of Foot Chasseurs; also four regiments of Zouaves, four regiments of Light Infantry, the Discipline Companies, some Tirailleurs, and two native regiments in Algeria and Tunisia. The eighteen regional regiments have each four battalions. Most of the 145 sub-divisional regiments have at present three battalions, but by the law of March 4, 1897, it was decided to add 145 fourth battalions, and this is being gradually accomplished. It has been done already in about forty-eight regiments. It is calculated that when this arrangement is completed, the French army will be increased by 50,000, and that the number of recruits required for such increase will be available. The corps which have already received their new battalions are the 1st (Lille), 6th (Chalons), 7th (Besançon), 15th (Marseilles). The eighteen regional regiments appear to be used, together with a large number of the battalions of Foot Chasseurs, on the east and south-eastern frontiers, to cover the mobilization and concentration of the field armies, rejoining their army corps when the concentration is complete.

Strength of the battalion.—In peace, the battalion has fourteen officers, 506 other ranks, six horses. *In war* the numbers are, eighteen officers, 1050 other ranks, thirty-one

horses, seven horsed vehicles. The new battalions have the same number of officers as the old, but the number of privates is not indicated.

Uniform.—Dark blue double-breasted coat, with number of regiment in yellow cloth at each corner of collar. Capote, or greatcoat, blue-grey cloth. Trousers red, made very full. Ankle boot.

Equipment.—One metal label; one belt; knapsack containing one jacket, one pair of trousers, one cap, two shirts, one flannel waistband, one pair of drawers, one pair of shoes, two provision bags containing two days' rations, one surgical packet, etc. On the top of the knapsack is the rolled greatcoat, and, if carried, the tent shelter. Over the shoulder are slung the water-bottle and a bag containing one meal, and there are also carried one mess tin, one can, one belt, three cartridge-holders, containing 120 rounds.

The metal label round the neck has on one side the man's name, etc., on the other his recruiting register number, and regional sub-division. The surgical packet is for first aid. It contains tow, compress, oiled silk or its equivalent, two safety pins, cotton bandage.

In addition to the above articles each squad carries two buckets, four cooking pots, one coffee mill for two squads, etc., and each *company* carries on the men forty tools, including shovels, picks, axes, etc., also thirty large tools on a mule. The *battalion* carries 280 tools.

It is to be observed that before leaving cantonments or bivouacs, the company cart, after distributing its ammunition, can take fifty-four knapsacks with their contents and the articles attached to them, some of these latter being distributed elsewhere in the cart, apart from the knapsacks, but all in the greatest order, and in minutely definite places. Also immediately before the

fight the fifty-four knapsacks are received, but are packed more irregularly.

Armament.—The infantry arm is the Lebel repeating rifle 1886, with bayonet twenty-one inches long. The rifle carries an eight-cartridge magazine charged with smokeless powder, weighing 8½ ozs., — initial velocity 702 yards, range 3555 yards.

Transport of a regiment of infantry, and its horses, are given below :—

	Vehicles	Horses
Company ammunition carts (1 per company)	12	24
Meat carts (1 per battalion)	3	6
Medical carts (1 per battalion)	3	3
Provision wagons (1 for regimental staff, 4 per battalion)	13	26
Baggage wagons (1 for regimental staff, 1 per battalion)	4	8
Clothes wagon (1 for the regiment)	1	2
Canteen carts (1 per battalion)	3	6
Extra horses		6
	39	81

Colonel or lieutenant-colonel			2
Major-Adjutant			1
Chief medical officer			2
Officer in charge of supplies			1
Officer in charge of details			1
Battalion commander	2	For 3 battalions	12
Captain-Adjutant major	1		
Medical officer	1		
Captains of companies			12
Chief artificer			1
		Saddle horses	32

There are also twelve mules, one per company, which carry pioneer tools.

The above transport is for a regiment of three battalions.

Chasseurs à Pied.—The thirty battalions of *Chasseurs à*

Pied are attached to the army corps, except the 29th, which is under the Government of Paris. The twelve battalions belonging to the 14th and 15th army corps, which have their head-quarters at Lyons and Marseilles respectively, are organized for mountain warfare, and located at such places as Annecy, Chambery, Grenoble, Nice, Antibes, etc. The remaining battalions are mostly concentrated on the east and south-east frontiers for purposes described above under *Infantry organization.*

Uniform.—Much the same as that of infantry, but trousers iron grey with yellow piping. Dark blue képi. For mountain work there are some alterations. A navy blue jersey is sometimes worn, either with or without an easy tunic, also a large cap and putties,—and an iron-pointed stick is carried.

Zouaves. Organization.—There are four regiments of four battalions of four companies, and two depôt companies.

Uniform.—Dark blue jacket and waistcoat with red braid. Full red knickerbockers with blue braid, a light blue cummerbund. Red fez with blue tassel.

Cavalry.

Organization.—There are 89 regiments of cavalry, namely, 13 Cuirassiers, 31 Dragoons, 21 Chasseurs, 14 Hussars, 6 Chasseurs d'Afrique, 4 Spahis. The regiments are organized in five squadrons, of which one forms a depôt. The 19th (Algerian) Army Corps has 41 squadrons for eight regiments. The four Spahi regiments have 22 squadrons in all, the first regiment having seven squadrons.

Strength of the squadron.—*In peace* the squadron has five officers, 140 other ranks, 139 horses. *In war* the numbers are five officers, 155 other ranks, 160 horses, also one vehicle.

Uniform.—Cuirassiers and *Dragoons* wear a dark blue tunic, with madder collar, bearing a dark blue patch with regimental number for Cuirassiers and white collar with blue patches and number in madder for Dragoons. Trousers madder, double cloth between legs, steel helmet, black horsehair mane, and for Cuirassiers, scarlet plume. *Chasseurs à cheval* and *Hussars.*—Loose sky-blue tunic, with madder collar bearing numbers for Chasseurs, and with sky-blue collar with numbers in white for Hussars. Trousers as for Cuirassiers, but with sky-blue piping down the seams. *Chasseurs d'Afrique.*—Uniform as in the Chasseurs with some differences. The tunic has a yellow collar with sky-blue numbers. *Spahis.*—Red jacket, sky-blue waistcoat, Arab trousers, red cummerbund.

Armament.—Sabre and magazine carbine with cartridges similar to those of the infantry rifle. The sword is attached to the saddle, the carbine carried over the shoulder. The lance is used in Dragoon regiments.

A dynamite cartridge three and a half ounces in weight is attached to the saddle, detonators and fuzes being in charge of under-officers. The mounted sappers have intrenching and demolition tools. Cuirassiers wear a cuirass weighing from 13 to 16 lbs.

Equipment.—The personal equipment is much the same as that of the infantry.

Transport.—The regimental transport is as follows :—

	Vehicles	Horses
Forge	1	4
Medical cart	1	1
Carts for wounded	2	2
Canteen carts	2	4
Baggage wagons (1 for staff, 1 per squadron)	5	10
Supply wagons (9 being for oats)	12	24
	23	45

Horse Conscription and Re-mounting.

It appears that the number of horses required for all arms on mobilization would be about 480,000, and that the resources of the country would not provide that number of suitable horses. It is thought that the deficiency would amount to at least 25,000.

There are two re-mount districts, namely, Caen and Tarbes. Caen has six depôts, two with annexes. Tarbes has seven depôts, and a number of annexes. There are also the depôt of Paris with four annexes, and of Macon, and the Purchasing Committee of Cuperly, etc. These various depôts, etc., account for practically the whole of France. In Algeria and Tunisia there are ten depôts and annexes, including three depôts for stallions and two for mares.

Artillery.

Organization.—During the past two years there have been considerable rearrangements in regard to the French artillery, the most important of which is the introduction of the quick-firing system. There has been little or no increase in numbers of men and officers. The artillery comprises 18 fortress artillery battalions,[1] including the 16th Battalion under the Government of Paris, and 40 regiments of field and horse artillery, forming 19 brigades each of two regiments, and two regiments over. One brigade is attached to each army corps. The two regiments (39th and 40th) are placed, the first at Troyes and Toul, the second at the camp of Châlons, and at St. Mihiel.

[1] Assigned to Bayonne, Belfort, Besançon, Brest, Briançon, Cherbourg, Épinal, Langres, Lille, Lyons, Maubeuge, Nice, Reims, Rueil (Paris command), Toul, Toulon, and Verdun (two battalions).

The regiments are divided into divisional and corps regiments. On mobilization the first regiment of each brigade goes to form the divisional artillery, and the second the corps artillery. The divisional regiment has twelve field batteries, and on mobilization provides six batteries for each of the two divisions of which the army corps consists. The corps regiment has nine field and three horse batteries; one horse battery is assigned to each of the independent cavalry divisions, three field batteries are available for reserve formations.

The foot battalions have normally six batteries, but the 6th has nine, the 7th five, the 11th eight, the 16th nine.

There are twelve mountain, and 16 Corsican and African batteries, attached for administrative purposes to the 14th, 15th, and 19th Brigades.

The artillery includes ten companies of Artillery Workmen, and three companies of artificers.

The strength is as follows, in peace:—

	Officers	Other Ranks	Horses	Horsed Guns	Ammunition Wagons
Field Battery	5	103	61	4–6	2
Horse „	5	105	87	4–6	2
Foot „ (fortress artillery)	4	129	4	—	—

And in war:—

	Officers	Other Ranks	Horses	Horsed Guns	Ammunition Wagons	Other Vehicles
Field Battery . .	4	about 180	163	6	9	12
Horse „ . .	4	about 180	217	6	9	12

In December 1898 the *Pester Lloyd* stated that by the

end of the spring of 1899, 480 batteries of field (*query* field and horse?) artillery would be equipped with the quick-firing gun, and that this would require 3000 guns, 4500 ammunition carts, and 6000 other vehicles. The guns are manufactured at Bourges and Puteaux, calibre 7·5 centimetres, muzzle velocity 600 metres, weight of cartridge 6·5 kilogrammes, projectile shrapnel; twenty shots a minute can be fired.

Uniform.—Dark blue tunic, scarlet collar with regimental number in dark blue. Dark blue trousers.

	Gun	Weight of Gun
Armament.—Field Artillery	90 mm.	10·43 cwt.
Horse „	80 „	8·36 „
Mountain „	80 „	1·97 „

Equipment.—The personal equipment is much the same as that of infantry.

Transport.—This includes ammunition wagons, forge, forage cart—all, as also the guns, six-horsed, and supply wagons, canteen, etc.; usually twenty-one vehicles in all.

Engineers.

Organization.—Five regiments of three battalions and one company of engineer-train, one regiment of four battalions and one company of engineer train. One Railway Regiment of four battalions and one company of engineer train. The 1st and 5th regiments are under the Government of Paris. In peace the remaining regiments are at Montpellier, Arras, Grenoble, Augers and Avignon. In war the regiments would be distributed amongst the army corps and armies. There are about 1200 engineers in Algeria and Tunisia.

Strength.—In peace the engineer company has four officers, 160 other ranks, one horse.

Uniform.—Dark blue tunic with scarlet piping, black velvet patches on collar with regimental number in scarlet. Trousers dark blue, scarlet piping.

Transport.—Of company, two four-horse engineer wagons, one pack-horse, two mules, with powder and explosives, two two-horse wagons for baggage, supplies, and oats.

Train.

Organization.—Twenty squadrons of seventy-two companies; of these twelve companies are in Algeria and Tunisia. These twelve companies belong to the following squadrons —Nos. 3, 4, 5, 8, 10, 11, 12, 13, 15, 16, 17, 18, and are entitled 7th companies, the companies being numbered 1st, 3rd, 5th, and 7th, where the 7th company exists. The business of the train is to furnish transport for the supply columns, ambulances, post and telegraph department, and staff. The train vehicles are kept ready in the artillery store departments of the various corps. On mobilization additional horses, mules, and vehicles are obtained by requisition.

Strength.—Figures are scarcely worth giving, as the difference between peace and war strength is enormous. The three-company squadrons have an average of eighteen officers, including doctor, veterinary surgeon, etc. The strain on this department on mobilization is very great, but the organization is probably both very minute and also good. Yet train, as important a department as any, seems still to be unsatisfactorily treated in most armies.

Uniform.—Iron grey tunic, madder collar with squadron number in grey. Trousers leathered to knee, with double thickness of cloth between the legs.

Gendarmerie.

There are twenty-eight legions of gendarmerie, including the Legion of Paris, which is not numbered. Included with the gendarmerie are the Republican Guard and the Sapper Firemen, also taken by the Government of Paris, as well as the detachment of Tunisia, located at Tunis. The first twenty-seven legions of gendarmerie belong to the army corps. The 6th corps has two legions (6*a* and 6*b*) at Chalons-sur-Marne and Nancy; the 7th has two (7*a* and 7*b*) at Besançon and Bourg; the 14th has 14*a* and 14*b* at Lyons and Chambery; the 15th has 15*a* and 15*b*, at Nice and Bastia; the 16th has 16*a* and 16*b*, at Montpellier and Perpignan; the 17th has 17*a* and 17*b* at Toulouse and Agen.

In the field the gendarmerie takes charge of the regimental trains, and of police duties in bivouac, etc.

Uniform.—Dark blue tunic, "aiguilette" on left shoulder, light blue trousers, dark blue stripes.

Active Army.

Several Summaries.—Officers of total active army 28,100, including 1303 doctors and 110 apothecaries.

Infantry brigade of two regiments, or six battalions, or twenty-four companies = 6400 of all ranks.

Cavalry brigade of two regiments, or eight squadrons = 1300 of all ranks with six guns.

Infantry division of two brigades, or four regiments, or twelve battalions, also one squadron, six batteries, one company engineers, one company train, one ambulance, one administrative convoy, etc. = 14,300 of all ranks.

Normal war strength of army corps 40,000 men, 12,000

horses, 120 guns, 2300 vehicles, providing a fighting force of 25,000 infantry, 1200 cavalry, 120 guns.

Total fighting strength of army corps, 26,200.

Supposing the army to take the field with six groups, each of three army corps, the

Total fighting strength of an army would be 78,600 *of all ranks.*

CHAPTER V

RESERVES

THESE consist of the Reserve of the Active Army; the Territorial Army; and the Reserve of the Territorial Army. The units of the Reserve, and of the Territorial Army, are attached to the corresponding units of the Active Army for administration, training and mobilization. However, there are a considerable number of battalions and companies employed as independent units in the Customs and Forest services.

The primary work of the Territorial Army is that of defence, and on mobilization the units may be employed to garrison fortresses, defend the coast and strategic points, and to serve on lines of communication; next this army may be formed into brigades, divisions, and army corps to take the field; finally units may be detached to form part of the Active Army.

In war the *Reserve* of the Territorial Army is called out when the Territorial Army is insufficient for services required. It has no separate organization.

Organization.—The Territorial Army has an organiza-

tion of its own, the cadres of which are permanently organized. Its forces are linked with the army corps, each corps having attached to it eight infantry regiments (nine to the fifteenth corps), four to eight squadrons of cavalry, one regiment of artillery, one engineer battalion, one company of train, etc.

Summary of Territorial Army.

One hundred and forty-five infantry regiments of three battalions of four companies and one cadre depôt company; seven battalions of Foot Chasseurs; 10 battalions of Zouaves; 150 squadrons of cavalry, including 72 squadrons of dragoons, 72 squadrons of light cavalry, and six squadrons of Chasseurs d'Afrique; 19 regiments of artillery, including the regiment under the Government of Paris, the number of batteries averaging from 12 to 16; 13 foot artillery batteries in Algeria; one battalion of garrison artillery at Lille; 18 battalions of engineers with a variable number of companies; 19 squadrons of train (usually of two companies), including the squadron under the Government of Paris.

The train, amongst other duties, performs the important work of supplying the *personnel* for the auxiliary supply column of the Active Army.

The cavalry may number 23,000 sabres.

Strength.—When mobilized the strength of the units of the Territorial Army would usually be the same as that of corresponding units in the Active Army.

Uniform.—Resembles that of corresponding units in the Active Army, but numbers on the collar and head-dress are white. Officers wear two buttons attached to a small

piece of gold or silver braid on the collar. Douaniers and forest guards wear green tunics.

Armament.—As far as possible the same as that for corresponding units in the Active Army.

CHAPTER VI

THE MARCH

Rate of March

Infantry, quick time	120 paces of 29½ inches a minute.			
Cavalry, walk .	. 120 yards a minute.			
„ trot .	. 262	„	„	
„ gallop .	. 371	„	„	increasing to 481 yards.
Artillery, walk .	. 120	„	„	
„ trot .	. 218	„	„	
„ gallop	. 371	„	„	

Infantry march a mile in from eighteen to twenty minutes. An average march is about fourteen miles, which can be done in five hours by infantry, three hours by cavalry, four hours by artillery, five hours by train. A forced march of thirty-eight miles can be made by infantry in from twenty-eight to thirty hours, if their packs are carried by the wagons. Cavalry on a good road should be able to get over from thirty to thirty-eight miles in a day of twenty-four hours, for several days in succession, walking a quarter of an hour and trotting three-quarters of an hour.

"*An Infantry Division* at war strength marching on a single road, with the usual distances, occupies a length of

ten and one-third miles, and takes four hours nineteen minutes to pass a given point.

"*An Army Corps*, under the same conditions, occupies a length of nearly twenty-four miles, and takes nine hours thirty-six minutes to pass a given point.

"*An Army Corps, marching on two roads*, takes up nearly fifteen miles of road, and takes six hours twenty-three minutes to pass given points on these roads."—*Captains Wisely and à Court.*

Advanced Guards.—In the case of a battalion acting as the advance guard of a column, one company precedes, detaching a section as its own advance guard, which in its turn is preceded by a group of scouts. Regiments advancing in flat, open country are covered by an advance guard at 2166 yards. Communication is maintained by riders or bicyclists, in wooded or broken country by men on foot.

Camps, Bivouacs, Billets and Cantonments.

Camps are only used on special occasions, such as besieging a fortified position. As is the case with the German army billets are always preferred to bivouacs. The nature of *bivouacs* depends on the tactical requirements of the time. Where possible troops bivouac in fighting formation, with the fighting train behind each battalion. Troops bivouac as seldom as possible; the usual occasion being in face of an enemy when it is necessary to concentrate on a particular point.

Billets.—Detachments from the various units are sent on with the advanced guard, and these tell off the billets for their units, localities having been indicated by the general in command. Where possible the civil authorities are

consulted. The staff occupies a central position. Officers are in the centre of their commands. Large buildings such as factories are used as much as possible. Inns, farms, and country houses with extensive stabling are used for cavalry. Units and various arms are as far as possible kept together.

Distinguishing flags, and at night lanterns, indicate commanding officers' quarters, the colonel's quarters being shown by the regimental flag. Head-quarters of the higher units are placed on main roads or in public squares. A place of assembly in case of alarm is told off, in the case of cavalry outside cantonments, etc., usually at the side furthest from the enemy. When very near the enemy troops are concentrated in areas lighted by night; the ground-floor of buildings is, if possible, the only part used; doors are kept open. Men sleep dressed, cavalry beside their horses, officers amid their troops. Horses are saddled and bridled.

Outposts.

The strength of outposts is from one-fourth to one-sixth that of the protected troops. Outposts consist of two parts—stationary posts and patrols.

The stationary outpost is divided into :—

1. A line of double sentries.
2. Piquets.
3. Supports.
4. Reserve.

A piquet varies in strength from a squad to a section. The support with its piquets is usually a company, and the reserve is usually of the same strength as its corresponding supports. The reserve is placed at the best point for purposes of resistance and deploying.

Patrols are of two kinds—reconnoitring (*patrouilles*), and visiting (*rondes*). At night reconnoitring patrols will advance about 1100 yards beyond the sentries, but further towards daybreak.

Sentries are at from two miles, or less, to three miles, in front of the body of troops they protect. They are relieved every hour or two hours, according to the season of the year, etc.; but only half of them at a time, so that there may always be some one present who knows the ground and orders.

The sentry's challenge at night is "*Halte-là.*" After the second unanswered challenge, he fires. If the approaching person stops, the sentry cries "*Qui vive!*" and the patrol answers "*France, ronde!*" or "*France, patrouille!*" as the case may be. If the sentry is obliged to fire, his business is to retreat in such a way as not to draw the enemy on the piquet. The following points must be attended to:—

To see without being seen.

To watch, and above all to listen.

At night always to have his rifle loaded and bayonet fixed.

Not to smoke, nor talk, nor sing. (N.B. the German sentry is often allowed to smoke. Perhaps smoke is a necessity of his existence, yet there seems to be inevitable risk.)

To watch the ground towards the enemy even when saluting, or replying to a superior.

The *watchword* (*mot*) consists of two parts, the *mot d'ordre*, which is the name of some great man, hero killed in action, etc., and the *mot de ralliement*, the name of a battle, town, etc. The *mot* is changed every day.

In the case of infantry outposts protecting considerable

bodies of troops, a few cavalry are attached for purposes of rapid communication.

Troops on outpost duty are relieved every twenty-four hours.

CHAPTER VII

DRILL AND TACTICS

DRILL, manœuvres, and military instruction generally are founded on the principle that the offensive alone permits of decisive results. As usual elsewhere the attack is prepared by artillery fire.

In the *infantry* attack in France, as in Russia, entire companies of a battalion are extended from the outset, the *petits piquets*, or company supports, disappearing. French authorities justify this proceeding on the ground that confusion is thereby avoided, but especially because "the supporting bodies are not sheltered from the fire directed upon the firing line in their front, and suffer losses, without being themselves able to take part in the fighting." Except France and Russia other armies still use the small supporting bodies, broadly speaking, on the grounds that unity of command is injured by too early extension, and also that if your advance sections are without their own supports, they must be supported by other units.

In France then, and in Russia, the attack consists of firing line, and reserve companies, whereas other armies use firing line, *supports*, and reserve companies. On the whole it is probable that English opinion is veering round to that of France and Russia, since the later formation is

held to be simpler ("True tactical wisdom lies in simplicity"—the late General von Schachtmeyer), less confusing, and safer, owing to the fact that two *échelons* of troops will suffer less from fire than three *échelons* of troops occupying an equal space.

Cavalry attack if possible on flank and front. Artillery is attacked by cavalry when on the move, if possible, especially when coming into action. Usually speaking infantry should not be attacked by cavalry except when unprepared, or thrown into confusion.

Fire is conducted by groups, and should be able to be stopped and recommenced instantly.

The following general principles are observed :—

In the attack commence your fire as slowly as possible.

Keep a reserve of cartridges for the decisive moment.

Prolong volley fire as long as possible. This is opposed to the German principle that individual fire is the most effective, as the men aim quietly, and can wait for the most favourable opportunity. However, German authorities admit that volley firing keeps the men in hand, and should be used at the commencement of an action. The whole matter is one of important controversy.

Magazine fire commences only by order of the officer.

Fire discipline is held of the greatest importance. Less, probably, is left to individual intelligence than in the German army.

Do not fire except when ordered. Fire only at the objective indicated. The battalion commander indicates the objective generally. The captain indicates the special objective, unless this has been done by his superior. He also supervises the fire.

Aim at the foot of the object.

A concentrated fire causes gaps in the enemy's line,

which weaken and demoralize him. A scattered fire is powerless.

Attention to distance, aim, and, generally speaking, accuracy, is of more importance than rapid fire.

Individual fire is not allowed at a greater range than :—

220 yards at a man lying down or under cover ;
330 yards at a man upright or kneeling ;
440 yards at an isolated horseman ;
660 yards at a group of four men or more.

Volley firing is allowed up to :—

880 yards on a target having about the front of a squad ;
1100 yards on a half-section ;
1320 yards on a section of infantry or artillery ;
1650 yards on extended lines, on companies, on artillery or cavalry ;
2200 yards on troops in column of route, or in mass.

Magazine fire and rapid independent fire may be used when the enemy is much exposed at any practical distance, and are used at short ranges at the decisive moment in the attack or defence.

In France and Russia, in order to secure a quiet development of the attack for the skirmishing line, a thin screen of scouts is pushed forward until the distance is reached at which the skirmishing line begins to fight. The fundamental idea appears to be correct, but, in France at least, the system has been carried to extravagance in the opinion of English and German authorities.

In France, Austria, and Russia, volley firing plays a great part. It is claimed that troops are thus kept in hand. Opponents urge that the formations required for the firing of volleys are inapplicable on ballistic grounds to real warfare (*i. e.* that troops so formed

are, owing to their closer order, inordinately exposed to fire), and that the future belongs to quiet, individual fire, supported and as far as possible influenced by fire discipline and fire leading.

It is a little interesting to notice that French and Russian systems of attack and fire principles correspond in several important respects.

The 5th and 9th Army Corps will manœuvre this autumn, the 5th division of cavalry being attached to the 5th corps, and the 1st division of cavalry to the 9th corps. There will be numerous other local manœuvres.

CHAPTER VIII

GENERAL

Distinctive Marks, etc.

The rank of non-commissioned officers is shown by stripes on the lower part of each sleeve. Corporal, two scarlet stripes; sergeant, one gold stripe; sergeant-major, two gold stripes; quartermaster-corporal, two scarlet stripes, one gold stripe on upper part of arm; quartermaster-sergeant, one gold stripe, one gold stripe on upper part of arm.

The rank of officers is shown by rows of narrow gold or silver lace on tunic, greatcoat, and forage cap. Sub-lieutenant, one row; lieutenant, two rows; captain, three rows; chef de bataillon, d'escadron, or major, four rows; lieut.-colonel, five; general of brigade, one silver star on cuff, epaulettes; general of division, two stars, epaulettes; marshal, three stars, epaulettes.

Staff officers have a double-breasted dark blue coat, dark blue collar with special staff ornament at each corner,

madder trousers with dark blue stripe, patrol jacket like that of general, with magenta cuffs, and forage cap of magenta with dark blue band.

RANGE AT WHICH INFANTRY FIRE SHOULD BE COMMENCED.

The principle has been maintained in France that infantry should only commence fire at medium range, such distance as from 660 to 770 yards, or at close range. However, there is a growing reaction against this principle, a principle discarded, to some extent, in Germany. The view of the later French school is expressed by General Philebert in *L'instruction du tir*, and in *L'infanterie perd son temps.*

He says—"Is it possible to open fire at 600 to 700 metres? Is it credible or probable that men will march under rifle fire without replying to it? We do not believe it, and we are strongly of opinion that fire draws fire, and that those who have to suffer from fire will reply to it. It may be fatal, but it lies in the nature of things. . . ." "At all times fire has been commenced at long ranges, even when the range of the bullet did not exceed 200 metres. At the present time, when the rifle is effective at 2000 metres, much time will be required to approach to from 500 to 600 metres."

ROADS AND RAILWAYS.

The chief roads in France are (*a*) national, or (*b*) departmental.

(*a*) There are 228 regularly numbered national roads, in three classes.

1. Seventeen first-class, from Paris to the frontiers or important military ports—15¼ yards broad.

2. Fifteen second-class, from Paris to the frontiers or chief ports—13 yards broad.

3. One hundred and ninety-six third-class, joining important interior centres—10⅝ to 11⅝ yards broad.

(*b*) Of these roads there are 1700, numbered by departments, from 8¾ to 10⅝ yards broad.

Like everything else in France, the *Railway* system is highly organized. Events are the only true test of organization, but it is the opinion of both German and English authorities that the utmost possible has been done, the care and technical skill exercised being really admirable.

Between 1881 and 1895 the total length of line available was increased from 15,786 miles to 22,299 miles. Seven double lines of steel rails lead to the eastern frontier. On mobilization 9959 engines and 293,465 carriages can be placed at the disposal of the Minister of War. To convey an army corps 106 trains are required, and 29 trains for the usual infantry division, consisting of twelve battalions, one squadron, six batteries, trains, and columns. To transport the whole of the forces to the frontier 2014 engines and 64,488 wagons would be required, so that the surplus rolling stock above requirements would be very large.

Finally, it is calculated that by the evening of the fifth day of mobilization the railways would be in a position to convey 5,796,000 men, a number very much larger than the total forces of France.

The Cycle.

The French military cycle will fold up, occupying a small space. It is strong and serviceable, yet lighter than that of some armies, the German for instance.

Spies.

The present writer well recollects as a boy being hunted around the town during the Franco-Prussian war by the

gamins with cries of *espion prussien*. Treachery, on the part of French officers, was the agonized cry of M. Gambetta's noble and passionate despatches, a cry probably justified in one great instance at least; at present the same feeling is predominant in the French mind—treachery at home, foreign spies. Such a feeling makes it very difficult for the average person to obtain the simplest information about the French army, as difficult almost as it is to obtain information about the English army; this by the way — but M. de Freycinet has done well to present the cold douche of common-sense to such enthusiasms. He says in effect that there *are* no very important military secrets, in France or elsewhere. Persons with sufficient command of time and money can usually obtain the information required in regard to any army, hence the policy of secrecy no longer holds. It is indeed doubtful whether it would make much difference to any one were all the secrets of all the military *attachés* published to-morrow. A good Baedeker would contain more valuable information for war purposes than the whole of them.

M. de Freycinet's War Policy.

For the past year or two there have been indications of an intention on the part of the military authorities to modify and readjust one portion of French war policy. In his *previous* War Ministry, M. de Freycinet aimed at a close junction of the Active Army and its reserve; but it has been found by experience that this union has resulted in numbers being favoured at the expense of efficiency. The cadres of the Active Army have been plundered to supply officers for the reserve, thereby affecting the solidity of the army required on the outbreak of war; and

the reserve has been placed under generals no longer capable of field service. France needs an army for operations in the first line entirely formed from mobilized active troops, in order to equalize Germany's superiority in numbers, and, perhaps, in strategic position.

Speaking on the war estimates for 1899, M. de Freycinet announced his intention of paying greater heed to organization and efficiency, less to numbers. The preparation for war of the Active Army will become of more importance; its reserve will become of less importance. He professes to believe that numbers are already so great that the addition of another army corps or two would embarrass the general in command, who would not know where to locate the troops on the frontier at his disposal, a strange doctrine which would appear to ignore the principle of reserves. Besides, as has been aptly pointed out by the correspondent of the *Times*, there is little doubt that in case of war both France and Germany would infringe on the neutrality of Belgium, thereby enormously increasing the frontier at disposal.

However, M. de Freycinet hardly attempts to conceal the fact that the real reason for his decision, fraught with some possibilities in view of the Peace Conference, is the fact of the relative populations of France and of the German Empire. The population of France is estimated at 38,518,000, that of the German Empire at 52,279,000, and, as the late War Minister remarks, you cannot compete in numbers with another power which can put three men into the field to your two. Yet was it not the greatest of Frenchmen, perhaps of men, who said that God is on the side of the big battalions?

Fortresses.

(*See also* p. 121, *note.*)

Amongst inland fortresses may be mentioned Paris with thirty-three forts, etc.; Belfort, Épinal, Lille, Lyons, Toul, Verdun. Paris is believed to be the most strongly fortified metropolis in the world, capable too of containing within its fortifications a larger army than could be accommodated in any other capital, but all information as to French fortresses is very difficult to obtain.

Budget.

Revenue	£141,360,000
Expenditure	141,350,000
Debt	1,280,000,000
War Budget	26,000,000

In a noteworthy paper in the *France Militaire*, No. 3980, which compares the expenses for the maintenance of the army between 1872 and 1897, there is the following statement:—"A comparison between the expenditure on the army, and the expenditure on other State departments, shows that the former is only one-sixth of the whole." Our "little" army costs us one-fifth of our income, exclusive of India. But our total Budget expenditure and debt are enormously less than those of France.

"*L'ennemi, l'ennemi séculaire, depuis Jeanne d'Arc jusqu' aujourd'hui, jusqu'à toujours,* C'EST L'ANGLAIS!"—Captain Danrit in *L'Armée Française*, 1899.

THE GERMAN ARMY

Population of the German Empire in 1896 . 52,279,000

CHAPTER I

WAR ADMINISTRATION AND SERVICE

COMMAND.

By the law of April 16, 1871, the King of Prussia, as Emperor of the German Confederacy, is the head of the German army. In war this rule is absolute. In peace it is subject to modifications which, more or less, conserve the interests of States.

Administration.—In Prussia, the predominant State in the Empire, the several branches of war administration are independent of one another, but report to the Emperor. The immediate agent of command is the *War Cabinet*, which is concerned with appointments of officers, etc. The *War Ministry* has charge of administration, including subsistence, lodging, the technical services, fortifications. *The Staff* is concerned with the study of foreign military affairs, with distribution of troops, railways, libraries, statistics, geography. The *Committees of Inspection* inspect the several branches of the army and the military schools.

The *General Staff* of the German army consists for Prussia of about 200 officers. About 100 officers at a

time are detached for divisional and corps staff duties. The remainder constitute the Higher General Staff at Berlin. The German officer who would rise is expected to be acquainted with staff as well as regimental work, and there is a constant interchange between these two departments of military duty, which tends on the one hand to make the Staff officer a practical man, acquainted with regimental needs and capabilities, and on the other hand to brighten and widen the mind of the regimental officer.

Military Service.

In Germany liability to military service lasts from the end of the seventeenth to the end of the forty-fifth year of age, and is divided into active service and Landsturm service.

Active service takes place either in the *Standing Army*, in its *Reserve*, in the *Landwehr*, or in the *Ersatz Reserve*. It lasts from the commencement of the twenty-first year to March 31 of the thirty-ninth year. Cavalry and horse artillery pass three years with the colours and four in the reserve; other arms pass two years with the colours and five in the reserve.

The Landwehr is divided into first and second levies. On quitting the reserve most men serve five years in the first levy; but cavalry and artillery serve three years in the first levy, provided they have completed their three years' service with the colours. The remainder of the time of active service is passed by all arms in the second levy.

The *Ersatz Reserve* consists of men excused active service owing to some defect, or on account of special reasons, and men temporarily unfit. Service in this reserve lasts twelve

years. Its members will in future be principally employed in the administrative and medical branches of the army. In the past a considerable part of this reserve consisted of supernumeraries from the annual contingents of recruits. Hence it is at present still used to fill up vacancies in the standing army.

The Landsturm is a defensive force, which, at a crisis, or after long, exhausting wars, may be employed to fill up vacancies in the army, as was the case towards the close of the Franco-Prussian war. It has not, however, I believe, been employed in active service since the Napoleonic wars. It is composed of all males liable to service, who belong to neither the army nor the navy, from the commencement of their eighteenth to the close of their forty-fifth year. There are two divisions of the Landsturm. The first levy comprises men up to March 31 of their thirty-ninth year. The remainder compose the second levy.

Besides these categories, there are in the German armies two other classes, namely, one-year volunteers, and two, three, and four-year volunteers.

One-year volunteers are well-educated young men, who provide their own uniform, food, equipment, and, in the mounted branches of the service, their own horses. At the end of one year's service these men can be transferred to the reserve.

Two, three, and four-year volunteers.—Men who wish to make the army their profession can volunteer for either of these periods, and then re-engage. "*From this category comes the bulk of the non-commissioned officers.*"

Methods of obtaining and instructing Under-Officers and Officers.

There are eight under-officers' schools, in which about a quarter of the infantry corporals receive three years' instruction, and proceed thence to join the army. Other infantry under-officers are promoted from the ranks, as also the under-officers of other arms. Besides the above schools there are five schools preparatory to them, which boys can enter at fifteen. Under-officers seldom become commissioned officers. The bulk of the non-commissioned officers comes from the category of two, three, and four-year volunteers.

The *German Officer*, therefore, must be obtained elsewhere than from the ranks. Ensigns are obtained either from the *Avantageurs* or the *Cadets*.

The *Avantageurs*, or *Privileged*, pass a special examination, or present a diploma from one of a certain number of public educational institutions, and these serve five months as privates. They must receive, before twenty-three years of age, a certificate of military competence.

Cadets are trained from the age of eleven in one of ten schools. At the age of fifteen they pass to the Lichterfelde Academy near Berlin; after which they undergo the same military instruction and service as the avantageurs.

Before becoming officers, both classes must pass through one of the eleven war schools. These are entered after seven or eight months' service, the two last months as ensigns. The course in these schools is divided into four terms. It lasts for thirty-five weeks, extending over three years.

Besides these studies, *Artillery* and *Engineer* officers must, subsequently, after having served for from one to

two years, pass one or two years in the schools of instruction at Berlin or Munich.

Cadet ensigns, and sometimes avantageurs, are encouraged to mingle with their future comrades, and before being appointed to a regiment as second lieutenant, a regimental court of inquiry, presided over by the colonel, investigates their rank, social position, character, etc. It is very difficult for any one not in the position of a gentleman, as we call it, to become a German officer—a person to whom attaches a peculiar distinction and importance. It is probable that such courts consider also the financial position of the would-be officer of the regiment, and thereby prevent scandals such as those which have occasionally occurred in the case of young regimental officers in other services.

Officers of the Reserve are retired officers of the Active Army, or are recruited from the one-year volunteers.

Landwehr officers are recruited from reserve officers and from one-year volunteers, from sergeant-majors, and from under-officers.

Besides these classes of officers, there are a number of *officers at disposal*, corresponding to our half-pay officers, who may be called out on mobilization.

Non-commissioned officers, in the Reserve and Landwehr, are recruited from the active army and from one-year volunteers.

Landsturm officers.—Many of these are army officers who have served their time.

CHAPTER II

RECRUITING AND ORGANIZATION

THE total number of individuals whose names appeared as those of persons liable for service was, in 1897, 1,575,448, made up as follows:—

Unaccounted for	51,022 men
Failed to appear	111,727 „
Men who had become liable to service in previous years	383,287 „
Postponed	546,759 „
Excluded	1,267 „
Rejected	38,191 „
Allotted to the Landwehr (first levy)	104,950 „
„ „ „ Ersatz Reserve	82,610 „
„ „ „ Naval Ersatz Reserve	910 „
Enrolled	223,669 „
In excess of requirements	9,823 „
Enlisted voluntarily in the Army	20,507 „
Enlisted voluntarily in the Navy	726 „
	1,575,448 men

This list is significant of the enormous numbers of men available for military service in a country with the large population of Germany. Several items are noticeable. Out of a total of over 1,500,000, less than a third were required, leaving a virtual reserve of not far short of two-thirds, the remainder consisting of over 160,000, who failed to appear, or were unaccounted for. These latter items are of significance. They probably represent, in regard to the larger part of their numbers, emigrants and those men who leave the country to escape conscription,

and they constitute an exhausting annual drain upon the resources of the Empire.

The peace strength of the German army is as follows:—

PEACE STRENGTH.

Trained Men	Officers	Other Ranks	Troop and draught horses	Horsed guns	Horsed ammunition wagons
Infantry . .	12,208	357,000			
Cavalry . . .	2,356	64,496	63,928		
Field Artillery .	2,524	56,491	28,593	2,552	91
Foot ,, .	810	21,650			
Pioneers and Railway Troops .	738	18,882			
Siege Train . .	308	7,560	4,250		
	18,944	526,079	96,771	2,552	91

Total peace strength, 545,000.

In war the several branches expand to the following numbers approximately:—

WAR STRENGTH.

The Active Army, including its fully trained Reserve	2,400,000
Three or four-year Volunteers	340,000
One-year Volunteers	103,000
Ersatz Reserve men	170,000
	3,013,000

But the above figures refer only to the offensive force. We have also to recollect the *Landsturm* or *Defensive Army*. This consists of about 3,200,000 men, of whom perhaps 500,000 have served in the active army, including its reserve and the Landwehr levies. For purposes of offence and defence we have therefore, in the German Empire, the enormous total of 6,213,000 men.

Total enrolled German forces, trained and untrained, 6,213,000.

Training.

In a book of this kind it is not necessary to enter into the matter of the training of the active army. In the reserve, *men* are liable to two annual trainings of eight weeks each, and *officers* to three trainings of from four to eight weeks. The annual training in the first levy of the Landwehr does not exceed two trainings of from eight to fourteen days. In the second levy trainings are not obligatory. The Landsturm is not liable to trainings.

Military Districts of the Empire.

For military purposes the German Empire is divided into nineteen parts, in each of which an army corps is stationed, and, in time of peace, usually recruited. "The army corps commander is, as regards command, absolutely independent in his own district, and receives his orders direct from the Emperor," who carries on the old tradition that the king is not only father, but captain of his people —Father, King and Captain, by the grace of God. On a critical occasion in 1862, Bismarck remarked to the King, "Your Majesty is bound to fight; you cannot capitulate, though you seal with your own blood your rights as King by the grace of God. Think of Charles I." And he adds, "As I continued to speak in this sense, the King grew more and more animated, and began to assume the part of an officer fighting for kingdom and Fatherland."

Besides the nineteen army corps, there is the corps of the Guard at Berlin.

After April 1, 1899, three new corps will be formed out of already existing infantry corps—namely, one Prussian, one Saxon, and, later on, one Bavarian. For

these only new staffs will be required. There is a suggested increase in cavalry; and forty-eight new field-batteries are to be established in Prussia, Saxony, and Wurtemberg, exclusive of the new field-batteries for the new Bavarian army corps, which will be added when that corps is formed. The addition to the peace effective of the army will amount altogether to 17,000 men, and 4000 horses, so that by the time this book is published, the German army should consist of twenty-one army corps—another to be added later—and one Guard corps, or, ultimately, *twenty-three corps in all*, and the *effective* peace strength should be raised to 543,000 men.

Exclusive of officers, the fighting strength of an army corps is about 24,093 infantry, 585 pioneers, 1204 cavalry, and 120 guns (but, apparently, the new army corps will be much fewer in numbers than this); it includes two divisions of infantry, *i. e.* four brigades, *i. e.* eight regiments.

War Organization of the Army.

The Army as organized for war consists of—(1) Troops in the Field; (2) Field Reserve Troops, or, first levy of the Landwehr; (3) Landwehr; (4) Depôt Troops; (5) Landsturm.

The composition of the army under these several headings is as follows:—

No. 1 consists of the Standing Army, brought up to war strength by calling in its reserves.

No. 2 is the second strategic line, and is formed of the men of the Standing Army and its reserves, who are not required at the front or at the depôts. On mobilization, a certain proportion of the cadres for No. 2 is drawn from the active army.

No. 3. This is, in reality, the second levy of the Landwehr. Its duty is to guard lines of communication, and garrison fortresses. Part of its cadres is detached from the active army.

No. 4. The depôt troops consist of men belonging to the active army not required at the front nor along the lines of communication, of Ersatz reserve men and recruits. Their business is to keep the armies in the field up to war strength.

No. 5. Troops formed for home defence, but which may be used to reinforce the other categories.

CHAPTER III

FOOD AND FORAGE

Rations.

The Field Rations.—In the field all officers and men are entitled to free rations, daily, as follows:—

1 lb. $10\frac{2}{5}$ oz. of bread, or 1 lb. $1\frac{2}{5}$ oz. of biscuit; if meat cannot be obtained, the bread ration may be raised to 2 lbs. $3\frac{1}{5}$ oz.

$13\frac{1}{5}$ oz. of uncooked fresh or salt meat, or $8\frac{4}{5}$ oz. preserved meat, or 6 oz. of bacon.

$4\frac{2}{5}$ oz. of rice or groats, or $8\frac{4}{5}$ oz. of pulse or meal, or 3 lbs. $4\frac{9}{10}$ oz. of potatoes.

$\frac{7}{8}$ oz. of salt.

$\frac{7}{8}$ oz. of roasted, or 1 oz. of unroasted, coffee.

Rations may be in kind, or money, or both; $1\frac{1}{2}d.$ is the compensation for the bread rations, and $7\frac{1}{2}d.$ for the

remainder. On extraordinary occasions the vegetables and meat may be increased, and a ration ($3\frac{2}{3}$ oz.) of brandy added.

The Field Forage Ration.

The field forage ration consists of 13 lbs. $3\frac{2}{3}$ oz. oats, 3 lbs. $4\frac{9}{10}$ oz. hay, 3 lbs. $4\frac{9}{10}$ oz. straw.

Iron Rations.

A ration called the Iron ration is carried by Infantry on the person, by Cavalry on the saddle, by Artillery and Train on the carriage.

With packing it amounts to 1 lb. 10 oz. in weight. One Iron ration is carried by Cavalry. Other troops carry three Iron rations. Oats varying from one and a half to three days' Iron rations are carried for every horse. Iron rations are not to be touched save in case of need.

Regimental Supplies.

These are carried in the regimental food and forage wagons, and amount to one day's full rations and three days' grocery, also one day's forage. If possible, cattle for the second day's supply of meat are driven with the baggage.

Second Line of Supply.

Each army corps of two divisions has *Provision Columns*, carrying a reserve of from three to four days' rations, in case of a failure in local supplies. The wagons fill up from magazines, or the wagon park columns. They seldom carry meat. Cattle are driven with them.

Third Line of Supply.

The Wagon Park Columns.—Of these there are seven to each army corps. For oat rations these form the second

line of supply. All army corps provision wagons may be used, when returning empty to the base, for sick and wounded, except for infectious cases. The wagon park columns receive supplies from various sources, especially contracts and requisitions. The first line of the supply columns keeps close enough to the troops to be able reach them and return to its base within the day.

Bakery Columns.

These supply bread when not otherwise procurable. Their depôt is the magazine of the troops. It is anticipated that all columns will be provided with travelling field ovens by April 1900.

Total Rations carried by the Field Commissariat.—For cavalry six to seven days' supply; for all other arms eight to nine days' supply.

Total Forage carried with Troops and in Train.—Three days' supply of oats.

CHAPTER IV

THE ACTIVE ARMY

Infantry.

Organization.—The *Infantry* is divided into regiments of the Guard, of the line, and of rifle battalions. There are 175 regiments of the Guard and of the line consisting of three battalions of four companies, and forty regiments of two battalions of four companies, on the *lower* establishment of strength. The Guards and the regiments stationed

in Alsace-Lorraine are on the *increased* establishment. The normal *brigade* consists of two regiments. For strength and comparisons see following table, borrowed from Major Agar :—

Unit	Peace				War					
	Officers	Medical Officers and Officials	N.C.O.s and Men	Horses	Officers	Medical Officers and Officials	N.C.O.s and Men	Horses	Two-horsed vehicles	Non-combatants, excluding Medical Officers
Company—										
Normal establishment	4	—	145	1	5	3	250	8	3	5
Increased ,,	5	—	161	1						
Lower ,,	4	—	126	1						
Battalion—										
Normal establishment	18	3	584	7	22	4	1002	46	15	29
Increased ,,	22	3	647	7						
Lower ,,	18	3	510	7						
Regiment of three battalions—										
Normal establishment	57	12	1762	28	68	12	3017	149	47	93
Increased ,,	69	12	1953	28						
Brigade of two regiments each of three battalions—										
Normal establishment	116	24	3526	64	138	24	6037	312	95	193
Increased ,,	140	24	3908	64						

Uniform.

Tunic.—Of cloth, single-breasted, dark blue, with scarlet collar and cuffs, on which the Guards wear lace. Shoulder-straps, bearing the number of the regiment, of various colours. Bavarian tunics are light blue.

Trousers. — Dark grey cloth with scarlet piping. Bavarian infantry—light blue with scarlet piping.

Head-dress.—Black polished leather helmet with metal spike and ornaments, and for undress a dark blue cloth forage cap (light blue in Bavaria) with red band.

Greatcoat.—Light grey in future.

Boots.—Wellington.

Armament.

Sword and revolver for officers, medical officers, etc. Rank and file, rifles and sword-bayonets. The rifle is Männlicher's repeater, having a calibre of 0·309 inches. Its magazine holds five rounds, loaded in one motion. Its length is 4 feet 1 inch; together with bayonet, 4 feet 9 inches. Weight of rifle unloaded, 8 lbs. 6 oz. The bayonet is a dagger with a blade 10·92 inches long, weighing 1 lb. 12 oz. For the charge 38·58 grains of smokeless powder are used. The lead bullet has a nickel-plated steel jacket. The complete cartridge weighs 424·39 grains, and is 3·247 inches long. The rifle is sighted up to 2050 metres. An iron plate 0·27 inch thick is penetrated at 300 metres, and any target should be hit at 250 metres. A metre is $1\frac{1}{12}$ yards.

Equipment.

The belts are of black leather, but in the Grenadier battalions of the Guards and in the Prussian Grenadier regiments they are white. The knapsack is of cowhide. It contains a bag for reserve rations, and thirty rounds. Forty-five rounds are carried on either side of the buckle of the waist-belt. Attached to the belt on the right side are the havresack and water-bottle, on the left side the bayonet and entrenching tool. Each man carries part of a tent. All the equipment is, so to say, of a piece, and can be put on or taken off together. *Total weight carried*, 59·4 lbs. Total portable tools carried by each battalion, 400 spades 40 picks, 20 hatchets.

Transport.

The transport for a regiment of three battalions is forty-seven two-horsed carriages, including twelve ammunition wagons. Wagons are four-wheeled, and painted grey; the medical store-wagon is painted blue.

Rifles.

Of these there are nineteen battalions, with an average peace strength of 22 officers and 650 men. *Armament* the same as for infantry. The *Uniform* is dark green tunic with scarlet cuffs, collars, and shoulder-straps. Trousers dark grey with scarlet piping. Head-dress, a leather shako. Bavarian Rifles dress much the same way as Bavarian Infantry. *Equipment* and transport of Rifles is the same as that of Infantry, but the knapsacks are made of badger-skin, the flap having a badger's head.

Higher Infantry Units.

The Infantry Brigade consists of Staff, two regiments, with in some cases a rifle battalion. Its strength is 6230 men, 312 horses, 95 carriages.

The Infantry Division consists of two brigades of infantry, one regiment of cavalry, one regiment of field artillery, one or two companies of pioneers, one divisional bridge train, one bearer company, etc. Its fighting strength, excluding officers, is 11,560 rifles of infantry, 195 rifles of field pioneers, 602 sabres or lances of cavalry, and 36 guns.

Active Army—Cavalry.

Organization.—There are 93 regiments of five squadrons, namely—

Heavy Cavalry	12 Cuirassier regiments 2 Saxon heavy Cavalry regiments
Medium	23 Lancer regiments 2 Bavarian so-called "heavy" cavalry regiments
Light	28 Dragoon regiments 20 Hussar „ 6 Light horse „
	93

Except the 11th cavalry brigade (three regiments), these regiments are combined into brigades of two regiments.

Strength.

There is not much difference between the peace and war strength. The war strength of a squadron is 5 officers, 150 men, and 165 horses; of a regiment, 23 officers, 602 men, and 674 horses; of a brigade, 48 officers, 1207 men, and 1360 horses. There are besides in a regiment, 68 non-combatants, including 7 medical officers.

Uniform.

Cuirassiers.—Metal helmets, white tunics and pantaloons, jack boots, grey cloaks, white belts.

Dragoons and *Bavarian Heavy Cavalry.*—Leather helmets, light blue tunic, white belts as a rule, dark blue pantaloons, long boots, grey cloaks.

Hussars.—Tunics of various colours, dark blue pantaloons, fur busbies, Hessian boots, white belts, grey cloaks.

Lancers.—Caps, dark blue tunics (Bavarian lancers, dark green), dark blue pantaloons, long boots, grey cloaks, white belts.

Regiments have distinctive facings, or busbies, and wear the regimental number on the shoulder-strap.

Armament.

All regiments are armed alike. Officers, sergeant-majors, etc., carry sword and revolver; serjeants and under-officers lance, sword, and revolver; lance-corporals and privates are armed with lance, sword, and carbine—a five-cartridge magazine weapon with a 0·309 inch calibre. Thirty rounds are carried in the pouch, fifteen in the wallet.

Equipment.

As in the English army, the carbine is carried in a bucket on the offside of the saddle. Ammunition is carried in a pouch attached to a shoulder-belt, spare ammunition and kit in two wallets, corn-sack and cloak in rear of the saddle.

Higher Cavalry Units.

Cavalry Brigade.—This consists of Staff and two regiments. Its strength is—1350 men, 1496 horses, 35 carriages.

Cavalry Division.—This consists of three brigades of cavalry, two batteries of horse artillery, etc. Its fighting strength, including officers, is about 3612 lances and 12 guns.

Horse Conscription and Re-mounting.

Horses are bought at from three to four years old, and are placed in depôts in the country, where they are trained. Sixteen of these depôts are in Prussia, one in Saxony, four in Bavaria. The peace establishment consists of about 125,000 horses, of which *Cavalry* takes 70,000; *Artillery*, 32,000; *Train*, 4000. On mobilizing, horses are requisitioned. Possibly 400,000 could be added in this way.

Active Army—Artillery.

Organization.—Field and Horse Artillery consists in peace of forty-three regiments; twenty-three regiments are composed of both horse and field batteries; twenty regiments have field batteries only. Regiments are organized in brigade divisions, usually of three batteries, but there are twenty horse artillery brigades, each consisting of two batteries. Total number of brigade divisions, 173.

Total number of batteries 500, forty-seven being horse artillery batteries, the rest field.

In war each regiment will probably be composed of six batteries, and each army corps will have an artillery regiment attached to one of its infantry divisions. The remaining batteries will furnish horse artillery for cavalry divisions.

Strength.—All batteries at war strength consist of six guns, nine ammunition wagons, two battery store, one provision, and one forage wagons, and a field forge. Batteries at war strength comprise five officers, 166 to 171 N.C.O.s and men, 236 to 150 horses, six guns, twelve 6-horsed wagons, one 4-horsed wagon, one 2-horsed wagon.

Armament.—Field and horse artillery are armed with the 8·8 cm. (3·46-inch) C/73/85 steel gun, the weight of gun and carriage together being about 18 cwt. 2 qrs., and the range 7100 yards; weight of shot or shell, 16 lbs. 8 oz.; number of rounds carried with a battery, 885. Officers and men carry swords, or sword-bayonets, and revolvers.

It is to be observed that the much-discussed quick-firing field gun has lately been introduced into the German

army, and is stated to have given good results in the 1898 manœuvres.

Uniform.—Most of the field artillery regiments wear dark blue tunics, with black collars and cuffs, and scarlet shoulder-straps bearing the regimental number, dark grey (Bavarian regiments dark blue) trousers with scarlet piping, leather helmet with brass ornaments and knob, and white belts (in Prussian and Bavarian regiments), black belts in Saxon, Wurtemburg, and Hessian regiments. The greatcoat is dark grey. Saxon regiments wear dark green tunics with scarlet collars and cuffs.

Equipment.—Kits of mounted men are carried as in the cavalry, of dismounted men on the wagons. Tents are carried on the guns and carriages.

Transport.—The transport of a battery consists of :—

Two battery store-wagons One field forge	6-horsed.
One provision wagon	2-horsed.
One forage-wagon	4-horsed.

Foot Artillery.

Of foot artillery there are seventeen regiments, two regiments having three battalions each, and the remainder two battalions each. Their strength per battalion is twenty-two officers, four medical officers, 1055 N.C.O.s and men, sixty-four horses, twelve vehicles.

Uniform, etc.—The uniform is the same as that of the field artillery, except that the shoulder-straps are white. Men are armed with repeating carbine and sword-bayonet.

Active Army—Engineers and Pioneers.

Organization and strength.—There are twenty-three pioneer battalions, three railway regiments and one railway battalion, two balloon detachments. ···

In the pioneer battalion the most important units are the *Field Company* and the *Siege Company.* Of the former there are in the war formation three in each battalion, of the latter two. A field company has five officers, and 200 N.C.O.s and men. A siege company has four officers and 200 N.C.O.s and men.

Uniform.—Dark blue tunic, with black collar and cuffs, white buttons, scarlet shoulder-straps bearing the number of the battalion. Dark grey (dark blue in Bavarian battalions) trousers with red piping, spiked helmet with white metal ornaments.

Armament.—The same as that of the infantry, but with German providence, the sword-bayonets have saw backs.

Equipment.—Kits are carried as in the infantry. Each company carries eighty-eight large shovels, forty-four pick-axes, forty-five axes, eighteen hatchets, and in tool wagons sixty large shovels, thirty pickaxes, twenty axes, twelve saws, six miners' picks, etc.

Besides the field and siege companies there are in each battalion a divisional bridge train, a corps bridge train, etc. A corps bridge train consists of two half-columns under lieutenants, and takes with it seven pontoon wagons, explosives, etc. An army corps has three bridge trains under a commanding officer.

Other important sections of the engineers are *Field Telegraph Sections—Railway Troops*—and *Balloon Detachments.* On mobilization the telegraph section is

completed from reserve and from those employed in the State telegraph departments, and each infantry division has a divisional telegraph section of two N.C.O.s and ten men, together with two two-horsed wagons.

An army corps has a corps telegraph section of four officers, one doctor, 144 to 148 N.C.O.s and men, seventy-six horses, ten wagons, namely two two-horsed, two four-horsed, and six six-horsed wagons. Telegraphists wear engineer uniform with T on the shoulder-strap. Each corps section carries material for 22½ miles of line.

The *Railway Troops* are divided into :—

(*a*) Railway construction companies.
(*b*) ,, traffic companies.
(*c*) ,, workman companies.

The war strength of a construction company is nine officers, two medical officers, 222 N.C.O.s and men, twenty-nine horses, three four-horsed carriages, two two-horsed carriages. Railway troops wear the uniform of the Guard pioneers, with E on the shoulder.

There are two *Balloon detachments* with fourteen officers, and 216 N.C.O.s and men. *Uniform*, the same as that of the Guard pioneers, with L on the shoulder-strap, and shako of Rifle pattern.

Active Army—Train and Medical Department.

In peace the train consists of forty-one skeleton battalions, each attached to the army corps with the corresponding number. In war these develop for their own battalions, and supply units for lines of communication, field reserve, and Landwehr. *In war* the formation and strength are, usually speaking, as follows :—

War.

Battalion cadre develops into :—

	Officers	Medical Officers and Officials	N.C.O.s and Men	Horses	Hospital and Sick Attendants	Vehicles
One battalion staff	2	4	19	24	—	5
One field-bakery column	2	1	258	103	—	21
One horse depôt	2	1	112	201	—	3
One wagon park column for line of communications	2	1	106	162	—	62
One reserve bakery column for line of communications	3	1	383	144	—	31
Seven (field) wagon park columns, each comprising	2	1	106	162	—	62
Six (field) provision columns, each comprising	2	2	97	141	—	29
Three field bearer companies, „ „	3	10	233	46	16	13

Uniform.—Dark blue tunic, with light blue collar, cuffs, and shoulder-straps. Dark blue breeches, or dark grey trousers with scarlet piping. Shako, black leather. White or black belts. Kits are carried as in the field artillery.

The Bearer Companies form an integral part of the train.

Transport.—The transport of a bearer company consists of eight ambulances, two medical store wagons, two baggage wagons and one provision wagon, all two-horsed. Ambulances carry from two to four severely wounded, and two slightly wounded men. Old pattern wagons have fifty-six, new pattern wagons seventy-two, stretchers, and a few tools.

Field Hospitals.

Army corps of two divisions have twelve, army corps of three divisions, eighteen, field hospitals, each of which can receive 200 sick or wounded. The establishment of a hospital comprises six medical officers, three medical

officials, forty-eight men, twenty-nine horses, seven wagons. Lines of communication hospitals are usually in charge of charitable societies.

For taking over wounded men from the field hospitals, each army corps mobilizes a War Hospital of nineteen medical officers, three apothecaries, six medical officials, twenty-seven hospital assistants, three under-officers, thirty-six sick attendants, twenty-four train soldiers, and three cooks.

Military Police.

Each corps mobilizes two detachments. One accompanies the corps, the other attends the line of communication. A corps detachment consists of one captain, one sergeant-major, thirty-four under-officers, seventeen lance-corporals, three servants, three officers' horses, and fifty-two troop horses. A line of communication detachment comprises one captain, one sergeant-major, three servants, twenty-one under-officers, twenty-one riding horses, etc.

Uniform.—Dark green tunics, light blue collars and cuffs, dark green shoulder-straps bearing the number of the corps, dark blue pantaloons, infantry helmets. Non-commissioned officers wear a gorget of white metal "with a number which runs right through the army."

Von Löbell's Concise Summary of Tactical Units.

Peace strength.—N.B. Owing to the inclusion or exclusion of several non-combatants, etc., this summary differs slightly from the detailed account in previous pages.

Infantry.

	Officers.	Men.
86 battalions of regiments on the lower establishment	18	501
428 „ „ „ medium „	18	573
93 „ „ „ higher „	22	639
15 Jäger battalions on the lower establishment	22	614
4 „ „ „ higher „	22	679

Cavalry.

	Officers.	Men.	Horses.
170 squadrons of regiments on the lower establishment	4	133	133
235 squadrons of regiments on the medium establishment	4	138	137
60 squadrons of regiments on the higher establishment	4	140	140

Field Artillery.

	Officers.	Men.	Horses.	Horsed Guns.
188 field batteries on the lower establishment	4	108	44	4
235 field batteries on the medium establishment	4	119	60	6
24 field batteries on the higher establishment	4	127	75	6

	Officers.	Men.	Horses.	Horsed Guns.
23 horse artillery batteries on the lower establishment	4	91	76	4
4 horse artillery batteries on the medium establishment	4	112	105	6
20 horse artillery batteries on the higher establishment	4	120	120	6

The Army in the Field.

In time of war the *army in the field* consists of perhaps five armies, each composed of from four to five army corps (p. 149), two to three cavalry divisions, and reserves.

CHAPTER V

RESERVE ARMIES

Second Line Troops.

The Field Reserve troops are the first support of the Active Army. They are formed of the men of the Active Army not otherwise absorbed, and of the youngest classes of the first levy of the Landwehr.

Infantry.

Just as the regiment in the Active Army consists of three battalions, so does the regiment in the reserve. The total regiment consists of the Active Army regiment and its reserve regiment, and on the normal establishment has 8000 men; a battalion comprises 1002 combatants, exclusive of commissioned officers, hence each regiment of the Active Army and of the reserve has 3000 non-commissioned officers and men, leaving 2000 men for the depôt. With slight exceptions the uniform, armament, and equipment of the reserve are the same as that of the corresponding regiments in the Active Army. The Landwehr cross in white metal is worn on helmet and forage cap.

Rifles.

Each battalion in the Active Army could form a reserve battalion. Uniform as in the Active Army, with the Landwehr cross in white metal on the head-dress.

Cavalry.

Probably one reserve regiment would be formed per brigade of the Active Army, with similar uniform, but the

Landwehr cross. The strength would be the same as in the Active Army.

Field and Horse Artillery.

The units of the reserve would probably correspond to the active units. Uniform, armament, and equipment would also correspond, the white metal Landwehr cross being worn on the helmet.

Engineer Services.

Each reserve division would have a reserve pioneer field company, bridge train, and railway construction company. Uniform, etc., corresponding to those of similar active units, with the Landwehr cross.

There would also be one reserve bearer company, three reserve field hospitals, one reserve provision column, three reserve wagon park columns for each division mobilized; with strength, uniform, etc., corresponding to that of the active units, the Landwehr cross being worn.

CHAPTER VI

THE MARCH

The quick step is 114 paces to the minute. The walk of cavalry or artillery 125 paces to the minute. The usual marching formation is column of sections of four files. Step may be broken on the march, and the columns may open out sideways to get air. Infantry must not start before daybreak, nor mounted troops till an hour after

daybreak. A short halt is made soon after starting, a long halt when half the day's march is over. Subsequently a halt every two hours. Much is left to the discretion of the commanding officer. Cavalry usually march in column of fours.

Advanced and Rear Guards.

Part of the cavalry is usually pushed well to the front, but each army corps forms a supporting advance guard of one-sixth to one-third of its infantry, together usually with artillery, pioneers, and balloon detachments. The cavalry of the advanced guard must never lose touch of its infantry. Rear guards are made as strong as possible, especially in artillery, since they have no support in retreat. As Lord Wolseley points out in his *Soldier's Pocket-Book*, a main business of artillery is to cover retreat.

Order of March.

Artillery is got as far forward as possible. In its rear comes the main body of infantry. The pioneer company and bridge train marches at the discretion of the general in command, either with the main body or the advanced guard. Wagons as a rule follow the artillery, battery wagons following their battery. Bearer companies follow immediately in rear of troops. With the enemy at a distance all baggage follows the troops, but with the enemy near only light baggage follows its unit. In such case heavy baggage follows the column, under escort, at about a mile's distance. On the march train and ammunition columns are divided into first and second lines, the first ammunition column at half-a-day's march behind its corps; unless a fight is expected, when it may be brought to the

head of the heavy baggage. Behind it marches the first line of train, comprising six field hospitals, etc.

Camps, Bivouacs, Billets and Cantonments.

"In the German army the principle is recognized that the worst quarter is better than the best bivouac."—*Major Agar.*

If possible *bivouacs* are only used before or after action, and on outpost duty. They are sub-divided into groups according to order of battle, and bivouacking in one line is insisted on.

Billets are taken up when the enemy is not likely to be engaged. Troops are distributed according to order of march—advance guard, main body, etc.; or, according to order of battle. Infantry is usually billeted nearest the enemy, cavalry further away, train still further, artillery is not billeted alone. If possible billeting parties are sent on beforehand, otherwise the village is divided into sections, which in turn divide the houses. The usual precautions are taken against surprise.

Outposts.

The main body of outposts remains on the main road, and pushes forward outpost companies, which cover themselves with piquets; these push forward double sentries. By day the outpost cavalry cover the front. Mounted orderlies and cyclists are attached to all units. The outpost commander remains usually with the main outpost, and receives his orders from the commander of the advanced guard. No bugle call is allowed except the alarm. Orderlies of outpost companies may not unsaddle, but may slacken their girths.

Piquets are of sections or half-sections of a company. Double sentries should not be more than 440 yards from the piquet. Sentries are usually relieved every two hours, and *are often allowed to smoke.* The challenge is "*Halt! Wer da?*" At night any person not answering the second challenge is shot down. At night there are frequent patrols, both of cavalry and infantry. Patrols visiting the sentry line are of two men.

CHAPTER VII

DRILL AND TACTICS

SIMPLICITY and individual intelligence are aimed at.

MANUAL EXERCISE.

In handling the rifle the only positions are—*slope arms*, *order arms*, and *present arms.*

COMPANY FORMATIONS.

The *company* is divided into three sections, each of two ranks. The section of sixteen or more files is divided into half-sections, and these into squads. The section of fifteen files is divided into squads. The squad consists of not more than six nor less than five files. Men of the company are as far as possible of the same size. The two normal company formations are *company in line*, and *company in column.* Other formations are practised, and the regulations lay down that "a company must be so trained that, whilst remaining in the hand of its com-

mander, it, with absolute attention to his orders, can carry out movements which have not previously been practised."

Battalion Formations.

A battalion is composed of four company columns, usually in double column, deep column, or broad column, the formation used for parades and when a battalion is rallied after an action.

Regimental and Brigade Formations.

There are no stated drill formations for a regiment. All movements are as simple as possible. The same principle applies to the brigade, which has two normal formations, namely, one regiment in front of the other, or with battalions of both regiments in either line.

General Remarks on Drill.

"In no army in the world are smart, steady drill and power of manœuvring in close order held in higher honour or more assiduously practised. Not that they are looked upon as the end of all things; on the contrary, they are considered simply as *the* means to the great end of insuring perfect discipline on the battle-field, and of keeping the troops absolutely in the hand of their leaders. *Close order is the basis of all things; and in action the Germans keep their men in close order as long as possible, preferring the loss of a few men to letting their commands get out of hand a moment sooner than is necessary.* And that even the best troops, once extended, do, to a certain extent, inevitably get out of hand, has been proved up to the hilt by the history of recent wars."—*Major Agar.* (The italics are mine.)

N.B. With this passage compare and contrast Lord Wolseley, *Soldier's Pocket-Book*, fifth edition, p. 583:—"Most men will admit that henceforward our manœuvres under fire must be made in open order." The contrast is, however, perhaps more apparent than real; the points are—(1) the "necessary moment" at which troops must get into open order or fall, (2) the amount and concentration of fire; and (1) depends on (2). I should add, that Lord Wolseley considers that our seven years' soldier should be better trained than the German two and a half years' soldier, and should, therefore, be better adapted to manœuvring in loose formation, less likely to get out of hand. But the matter is still one of acute controversy, England, France, and Russia being apparently opposed to Germany.

The Attack.

Skirmishing.—Movements are, usually, at the quick, not at the double. Everything is to be done "as quietly and with as little fuss as possible."

Attack of a Company.—A section is extended, the remaining sections acting as supports. The distance of the support on the drill ground is about 150 paces. In order to avoid the company getting out of hand the extension of the whole is avoided as long as possible. In France and Russia the entire companies of a battalion are extended from the outset.

Attack of a Battalion.—Similar principles prevail. Hence the formation of the battalion is deep rather than broad. The commander retains a reserve, relies upon a reserve; yet keeps it so far off, if possible, that one fire shall not strike two lines. Before action the battalion commander instructs his company leaders as to his plan,

and assigns tasks which the company leader carries out as best he can.

Attack of a Regiment.—Regiments attack in deep formation. Regiments must not be mixed up in action. Battalion commanders are set their tasks, to be carried out according to discretion. At the commencement of an action the regiment usually fights with its two battalions deployed side by side.

Attack of a Brigade.—A brigade fights usually with its two regiments side by side. Each regiment receives orders from its brigadier. At the commencement of the fight the front of the brigade of six battalions would extend from 1100 to 1320 yards.

General Principles of Fire-Action.—Though the advance to the attack, and part of the attack itself, are in close formations, the middle part of the infantry fight is in dispersed order. Fire is *individual*, *volley*, or *magazine* fire. Individual fire is considered the most effective, "as the men aim quietly and can wait for the most favourable moment for firing." It is admitted that volley firing is best suited to keep the men in hand, and such fire is used at the commencement of an action; but in the heat of action the commander cannot be heard. Magazine fire is used on sudden emergencies, such as a cavalry charge, or before the infantry line itself charges. Shooting is held to be effective up to 1000 or 1100 yards at high targets, and up to 660 yards at low targets. An inferior force cannot approach within 400 yards of a superior without effectual cover.

The shooting line advances at the quick. Advance by rushes is disapproved of, as tending to fatigue and excite the men. The individual halts to fire. Cavalry charges may be awaited with confidence by infantry in line, pro-

vided the flanks are secured. If possible infantry must pass over the ground which would be swept by the enemy's artillery fire at night. "The great object of an attack is to obtain the upper hand in the fire-fight." The artillery clears the way, and the infantry gets as close as possible to the enemy's position before opening fire. So soon as the enemy's fire begins to weaken, the ranks close up, magazine fire commences, and with bugles sounding, and drums beating, the troops march quickly upon the enemy, cheering as they go.

The Cavalry Attack.—The essence of success is rapidity combined with order, and with security from counter-attack. Hence cavalry will seldom attack infantry which has not been previously shaken. The charge is delivered in one unbroken line of two closed-up ranks. At the shock the trumpets sound and the men shout Hurrah! In pursuit the object is to remain always engaged, and keep the enemy from rallying. A sure test of discipline is rapidity in assembling after the *mêlée* in informal detachments of two ranks. Cavalry is held to be most effective in attack when acting in large bodies, and the first line of the cavalry division generally assumes fighting order in squadron columns. In action against other cavalry the essential thing is to obtain the initiative, and compel the enemy to defence. General principles are laid down, but the commanding officer is expected to use his wits. Artillery is attacked, if possible, in flank or rear. Horse artillery attached to a cavalry division (two batteries) remains with it during the cavalry fight.

Dismounted Action.—Before dismounting his men the leader must have decided in his mind whether led horses are to be mobile or stationary. If mobile, odd numbers dismount, and even numbers take charge of their horses.

There should usually be a mounted reserve. Mounted infantry are not used in the German army.

No rules are given for cavalry covering the front of an army; yet it is probable that in no respect has German military service been more successful than in this. The present writer well remembers the idea ever associated with the success of German arms in the Franco-Prussian War. To peasant and townsman the constant thought was the dreaded Uhlan. The Uhlans covered the face of the land numerous as locusts, and like locusts they were here to-day and gone to-morrow. They well fulfilled their duty, veiling the movements of their own army, providing lodging, food and forage for the troops behind them, and above all acting as the ever-watchful eyes of the force, searching out and conveying all sorts of useful intelligence to the commanding officers behind. The faculties of such men should be peculiarly alert. They adapt themselves to local conditions, and rules are of little use to them.

Field Artillery.

An action is usually opened by an artillery duel. To this end all available guns are brought into action. Protective earthworks should always be thrown up if time allows, even in attacking, especially for protection of the men. If possible action should be commenced not only under protective cover, but from a position of concealment. The enemy should be taken by surprise. The general in command assigns the target; but its division rests with the artillery commander. The target should be the section of the enemy most important for the time being; hence at the commencement of action it is usually the enemy's artillery, later on the enemy's infantry. Ammunition should

be expended with care rather than speed; the usual rate of fire for a battery of six guns being four rounds every five minutes. In defence and retreat "artillery must hold out to the last moment, and it is an honour if guns are thus lost."

Pursuit.

The fire of artillery being obviously of great value in pursuit, guns must be got as far forward as possible with the utmost speed.

Horse Artillery.

Horse artillery must be mobile enough to keep up with cavalry in attack and pursuit. When cavalry charges cavalry the horse artillery takes up a position and fires upon the enemy's horse. In successful attack it follows its cavalry; in defeat it covers retirement.

Range of Artillery Fire.

Fire is effective upon closed companies and squadrons between 2200 and 1650 yards, upon cavalry and infantry in line between 1650 and 1100 yards. At 1100 yards artillery should be able to protect itself against infantry, but at 866 yards (800 metres) infantry fire has the best of it.

CHAPTER VIII

FORTRESSES

LIST OF FORTRESSES IN THEIR CLASSES.

First class :—

Metz, Strassburg, Ingolstadt, Ulm, Mainz (Mayence), Coblenz, Köln (Cologne), Wesel, Magdeburg, Spandau, Küstrin, Königsberg, Danzig, Thorn, Posen, Glogau, Neisse.

Second class :—

Diedenhofen (Thionville), Bitsch, Neu-Brisach, Saarlouis, Germersheim, Glatz.

Unclassed :—

Rhine bridge defences, Königstein, Molsheim, Boyen, Vistula bridge defences.

Coast defences under the Naval Authorities :—

Memel, Pillau, Swinemünde, Kiel and Friedrichsort, Cuxhaven and Elbe defences, Geestemünde and Weser defences, Wilhelmshaven, Heligoland.

On the Western frontier the line of the Rhine is defended by fortresses, of which the following are amongst the principal :—*Strassburg*, with fortifications on both banks; *Mayence*, with fortifications on both banks; *Coblenz*, fortifications upon the left bank; *Cologne*, fortifications on both banks; *Wesel*, fortifications on both banks. On the Moselle, the advance guard of the Rhine is Metz, no longer *la pucelle*.

On the Southern frontier we have two important positions upon the Danube, *Ulm*, with fortifications upon both banks, and *Ingolstadt*, also with fortifications upon both banks.

Upon the Neisse, a tributary of the Oder, there is *Neisse*.

On the Eastern frontier we have *Glogau*, on the *Oder*. On the *Wartha*, *Posen*, encircled by fortifications. On the *Vistula*, *Thorn*, with forts on either side of the river guarding the bridge; and *Danzig*, an important fortress at the mouth of the river. On the *Pregel*, *Königsbery*, encircled by fortifications.

The Baltic coast is defended by *Memel*, at the entrance of the *Kurische Haff*; *Danzig* (under the military authority), *Swinemünde* at the entrance to the *Haff*; the works on the isle of *Rugen*; *Kiel*; etc.

On the North Sea coast there are the works at the mouth of the Elbe from *Stade* to *Cuxhaven*, also the defences of the mouth of the *Weser*, and *Wilhelmshaven*, while the *Heligoland* fortifications will act as an outpost in that direction.

Unlike *Paris*, Berlin is not itself fortified, but it is covered on the *west* by *Magdeburg*, on the Elbe, about fifty miles away as the crow flies.

On the East by *Küstrin*, upon the Oder.

On the North-West, and close at hand, by *Spandau*, with a citadel and detached forts.

All these are first-class fortresses.

In *Alsace-Lorraine* are twenty-two infantry regiments, fourteen cavalry regiments, forty-seven batteries of artillery, forty fortress companies of artillery, and sixteen companies of pioneers, all at *increased* strength.

CHAPTER IX

GENERAL

Active and Reserve Armies.

Uniform—Distinctive marks.—General officers wear two broad red stripes down the seam of the trousers, with a narrow red stripe between them. In the case of general staff officers, the colour is carmine.

Lance-corporal or bombardier—a button on each side of the collar.

Under-officer—gold or silver lace on collar and cuffs.

Sergeant—gold or silver lace on collar and cuffs, with lance-corporal's buttons.

Sergeant-major—as for sergeants, but with officers' sword-knot.

Ensign—as for sergeant-majors, but without the buttons.

Second lieutenant—epaulettes, no badge on shoulder-piece.

First lieutenant—one star on shoulder-pieces or epaulettes.

Captain—two stars on shoulder-pieces or epaulettes.

Major—no badge.

Lieutenant-colonel—one star on the shoulder-pieces or epaulettes.

Colonel—two stars.

Major-general—no badge.

Lieutenant-general—one star on the shoulder-pieces or epaulettes.

General—two stars.

Field-marshal—crossed batons on the shoulder-pieces or epaulettes.

Medical officer—a serpent climbing up a staff on shoulder-pieces or epaulettes.

Hospital assistant, stretcher-bearer, etc.—a white band with red cross round left sleeve.

Regimental stretcher-bearer — red band round left sleeve.

Landwehr.

The Landwehr cross on the head-dress.

Means of Identification.

In time of war each man has a tin ticket with his number and that of his company, squadron or battery, and regiment, suspended by a cord round his neck under his clothing.

Officers' Pay (*Latest List*).

General	£1090	approximately.
Commander of division	765	„
Commander of brigade	592	„
Commander of regiment and surgeon-general	462	„
Commander of battalion and divisional surgeon	346	„
Captain and upper-staff surgeon (2nd class)	263	„
Captain (2nd class) and staff-surgeon	204	„
First lieutenant and assistant-surgeon (1st class)	126	„
Second lieutenant and assistant-surgeon (2nd class)	97	„

Manœuvres of 1897. Lessons Taught.

In the case of the Eastern army the most noticeable tendency was to fight "massed," in order to obtain the utmost initial tactical energy.

On several occasions the *rencontre* battle occurred, a battle ideally incorrect, but frequent in the Franco-Prussian war, and, since men are human, probable in the wars of the future. In one at least of these battles the value of the "massed" fight was apparent.

On the third day of the manœuvres a subordinate leader prevented the breaking of the line by acting contrary to orders, circumstances having arisen since an order was given which, in his opinion, justified him in so doing. This is such justifiable *independent action*, on the part of an officer of character as is guardedly extolled by Lord Wolseley, and other considerate authorities.

In 1897 cyclists took their place in the German manœuvres as organized troops—they succeeded repeatedly in making themselves generally troublesome to the enemy. The German military cycle is heavier than the French, and does not fold up.

Divisional Cavalry, favoured by the ground, more than once successfully attacked the exposed flank of the engaged firing line. Cavalry must in future pay increasing attention to its action in conjunction with infantry.

Field Artillery gained great success. The battles of the future will, to a considerable extent, be won by the due preparation of the fight by the artillery. The tendency is to employ artillery in masses in the first stage of the fight.

Duelling.

Duelling in the army is becoming less frequent. It is discouraged by the Emperor, at any rate for small causes, and by the Church for all causes; yet there is no doubt that in Germany even the religiously-disposed young lady looks upon the thing as a necessity. Honour is first,

religion second. Death for honour's sake may at times be necessary.

The proceedings are much as follows: If an officer's honour is insulted he brings the matter before the Court of Honour, which is composed of officers of the regiment in question, and which deliberates in secrecy. An endeavour is made to reconcile the offended parties and to get the insult recalled. If unsuccessful, recourse is had to the duel. The officer challenged has the right to choose the weapons, usually swords or pistols, and the distance if pistols are used. In case of the death of either, the survivor is brought before a military court, and is usually sent under arrest to a fortress for a few months, and then pardoned by the Emperor. The arrest is nominal, and position in society and chances of promotion are not injured.

Discipline and Spirit of the Army.

These are reported to be quite excellent.

Budget.

Imperial Revenue	£69,157,000
,, Expenditure	70,562,000
,, Debt	113,063,000

It is almost as difficult to get at an exact figure for the army expenditure of the German Empire as of the British Empire, and German statisticians differ regarding the figures to be included, and the explanation of those figures, as do English statisticians regarding the British figures. The present annual expenditure on the Army for *all parts of the Empire* may probably be put at not less than £33,000,000. But this sum cannot fairly be compared with the total Imperial State Budget given above, since

the expenses there given are Imperial expenses only, exclusive of the separate expenses of the several states, whereas the Army expenditure endeavours to include both Imperial expenditure and the expenditure by the several states.

Literature.

Taktische und strategische Grundsätze der Gegenwart, by General von Schlichting: Berlin, 1897, G. S. Mittler & Son, discusses the question of company supports versus the extension of entire companies of a battalion from the outset, inclining to the latter formation. This view is opposed by *Einleitung und formale Taktik der Infanterie*, Captain von Balck: Berlin, 1897, R. Eisenschmidt. The question of whether or no independent instructions should be given to officers in command of comparatively small units, such as a battalion, or company, etc., is discussed in Lieutenant-General von Boguslawski's *Betrachtungen über Heerwesen und Kriegführung*, Berlin, 1897, R. Eisenschmidt.

Colonial Army.

The German colonial army, like the German colonies, does not require much present consideration. There are about eight or nine hundred colonial troops—that is, white men. These, by the bye, constitute considerably more than half of the Germans in the million square miles of the German colonial empire.

Six months ago we were all anti-German; however, to-day we are all pro-German. The Kaiser speaks of "our common race." Mr. Rhodes visits Berlin. The *rapprochement* seems sagacious. The two nations have much to do all over the world which had best be done together. At present German *influence* is of more importance than

German possessions, but these may in time develop, and with them a colonial army.

Additions to Army.

Germany desires to add (Estimates 1899) 23,277 men to her infantry, and to make certain alterations in the way of greater numbers and efficiency in regard to cavalry. These additions are significant in view of the declared policy of M. de Freycinet, who holds that with a smaller population, France can no longer compete with Germany in numbers, but must look for success to better organization and training.

THE GRECIAN ARMY.

Population 2,433,000

THE army of Greece has lately been a subject of rather special interest. During the late war it was criticized here in England almost as severely as the Grecian fleet; but correspondents who were present with the *Grecian* forces, while admitting much disorder and incapacity, spoke too of much bravery, and some capable handling, of the troops in the field.

The population of Greece is estimated at about 2,180,000, including 100,000 Albanians, who are said to be the best soldiers in the Grecian Army.

Service.—Liability to service begins on the twenty-second birthday. Nominally service is as follows :—

	Active Army	Active Army Reserve	Territorial Army	Territorial Army Reserve	Total
	Years	Years	Years	Years	Years
Cavalry . . .	2	8	10	10	30
All other branches .	2	10	8	10	30

Actually, only cavalry serve their full time in the active army. The Territorial Army and its reserve only exist on paper, except in war.

Organization of the Permanent Army.—Infantry, ten regiments, consisting of thirty battalions; *rifles*, eight battalions; *cavalry*, three regiments, or twelve squadrons;

field artillery, twenty batteries of six guns; *engineers*, one regiment; telegraphists, one company; one pyrotechnic company; *train*, one company; *sanitary corps*, two companies.

Peace strength.—The peace strength of the Permanent Army, including 4000 gendarmerie, is about 23,000 officers and men, 2200 horses, 300 mules, and 120 guns.

The actual war strength will best be seen by reference to the notes on the war of 1887.

Military districts.—There are three, namely the Athenian, the Thessalian, and that of Epirus.

Uniform and distinctive marks.—*Infantry*, dark blue jacket or tunic, light grey trousers; *cavalry*, olive green; *artillery*, dark blue jacket, crossed guns in red on shoulder-strap; *engineers*, dark blue jackets, pink collar; *medical service*, dark blue jacket, Geneva Cross on collar. The *euzoni* or *rifles* wear the national petticoat dress and breeches, but officers dress like those of the Line.

Sub-lieutenants—one gold star.

Lieutenants—two gold stars.

Captains (1st class)—three gold stars.

Captains (2nd class)—four gold stars.

Majors—one gold star, one gold band round képi.

Lieutenant-colonels—two gold stars, two gold bands round képi.

Colonels—three gold stars, three gold bands round képi.

Armament.—It is intended that the *infantry* should be armed with the Austrian Männlicher magazine rifle. At present most of them are armed with the single loader Gras (433″) rifle. The sword-bayonet is used. *Cavalry* are armed with the Gras carbine and sword. The *field artillery* guns are, two batteries of 8·7 cm. guns (12-pounders). The remaining batteries have 7·5 cm. guns (9-pounders).

BUDGET.

Revenue, 1898	£2,500,000
Expenditure, 1898	2,490,000
Old public debt	22,068,000
Guaranteed debt	6,800,000

Owing to the war the total Budget for 1897 rose to £5,958,000, while the total *Army Budget* for that year stood at £2,280,000.

GENERAL.

War Notes.

On February 13, 1897, the reserves for the years 1893-4 were called out; on February 27 those for the years 1891-2; on March 4 those for the years 1890, 1889, 1888, 1887. The order for the mobilization of the Greek army was given on the 13th of March, 1897.

On the borders of Thessaly were assembled 42,255 infantry, 730 cavalry, ninety-six guns; of Epirus—22,438 infantry, 240 cavalry, forty-eight guns. The war was undoubtedly popular, and the movement which caused it a genuinely patriotic movement. Notwithstanding the sneers of the cynical, thoughtful persons in all countries were deeply moved by Turkish atrocities. Successful European action was, under the circumstances, hopeless; so was Grecian action; but the Greeks resolved all the same to do something. Reserve officers, pensioned officers, schools, local institutions, parliamentary deputies, responded not ignobly to the call to arms.

THE ITALIAN ARMY

Population 31,102,000

INTRODUCTORY NOTE

ITALY is a power to which England always wishes well. Our interest in Italy was shown lately in the assistance which we rendered to her at the time of the disastrous failure of her African policy. She is animated by high military spirit. English officers have described the keen distress of Italian officers at being compelled to hand over to them possessions won by the sword in Africa, which Italy was unable to hold, and which we in a friendly way took over. But though her spirit is high, her resources are in a state of exhaustion. Hardly recovered from the pangs of her new birth, she plunged with recklessness into competition with the great military and naval powers. Taxation rapidly increased; but it was whispered that in many cases due value was not received for money spent, and, during the last few years, there has been a constant succession of financial and political crises, culminating in the African disasters, and succeeded by a strenuous effort to reduce taxation.

Since even in the piping times of expenditure the condition of the Italian army and navy was in several important respects deficient, we may expect that this

deficiency still exists, now that expenditure is reduced, and the figures given below will not always represent very solid facts.

CHAPTER I

WAR ADMINISTRATION AND SERVICE

COMMAND.

BY the Constitution the King is head of the army, but his acts must be endorsed by a Minister responsible to Parliament. Under the King is the Minister of War, in whose hands are the command and administration of all the forces. The Minister performs his functions through (1) the War Ministry, (2) the Staff, (3) the standing Inspection Committees.

Administration.—The War Ministry is composed of five departments, the first of which, itself divided into five parts, is concerned with matters of general interest, such as organization, instruction, mobilization, pay, *personnel* of general officers, etc. The other four departments are concerned respectively with the affairs of the infantry, cavalry, artillery, and engineers, and administration and recruiting of reserves.

The Staff has in charge preparations for war. It also is divided into divisions and sections, such as the office in charge of the Eastern, the Austro-Italian frontier; that in charge of the Western, or Swiss and French frontiers, and so forth. The Staff has charge also of the archives, and is concerned with questions of military geography, with intendance, transport, the Academy of War at Turin, the

railway battalion at Turin, etc. The Chief of the Staff in peace is Chief of the Staff and Intelligence Department in war. His second in command is, in war, specially concerned with the operations of war. The third officer is, in war, Intendant-General of the Armies.

Liability to service is between twenty and thirty-nine years. Military forces consist of Standing Army, Mobile Militia, Territorial Militia. A large section of those liable, though medically fit, is, for one reason or another, exempted from active service, but must belong for nineteen years to the Territorial Militia. The remainder draw lots. Those chosen for the first category serve three years in the Active Army, five years in its Reserve, and eleven years in the two branches of Militia. Those chosen for the second category serve not at all with the colours, eight years in the Army Reserve, eleven years in the two branches of the Militia.

Like the German Landsturm, the *Territorial Militia* is, to a large extent, merely a way of naming the untrained male population of the country. It consists of 2,080,000 men, of whom 67 per cent. have had no training at all.

Under-officers and Officers.—To use English names, under-officers are—sergeant, sergeant-major, and sub-officer. Corporals and corporal-majors are not counted as under-officers. Sergeants are usually chosen from the pupil-sergeants of the various corps, but they may be promoted corporals, or pupils of the military schools unfit to become sub-lieutenants. *Under-officers* can become officers. In each arm about a third of the vacancies is filled up from the ranks. These selections are sent to the School of Under-Officers at Caserta, and promoted after course and examination, as vacancies occur.

The remainder of the officers is obtained by way of the

military schools of Milan, Florence, Rome, Naples, and Messina, to which boys go between the ages of eleven and fourteen. The course is five years. Thence the boys proceed, after satisfactory examination, to the higher schools of Modena or Turin. Modena corresponds to our Sandhurst, and trains young officers for infantry, cavalry, and commissariat. The Military Academy of Turin corresponds to our Woolwich Academy, and prepares for the engineers and artillery. At Modena the course is two years, at Turin three; the entrance examination here being harder than that at Modena. There are besides subsequent courses of instruction after quitting these schools.

Regimental officers are sub-lieutenant, lieutenant, captain, major (chief of battalion or squadron), lieutenant-colonel, colonel. Up to the rank of major promotion is partly by age, partly by selection. Above that rank, by selection only. The higher ranks of officers are major-general, lieutenant-general, the general of the army.

Reserve officers.—These are obtained in various ways, chiefly from retired army officers, partly from youths who, having satisfied certain conditions, become corporals at the end of six months' service. Officers of the Territorial Militia are chosen from retired officers. The number of officers for this reserve is ridiculously inadequate, being 12,000 for 2,080,000 men; but it must be recollected that this is merely a nominal force. The number of officers available would probably be adequate for the trained men of this force, but quite inadequate to train the untrained men.

CHAPTER II

ORGANIZATION

Numbers trained in any year.—These vary. In 1897 the numbers were exceptionally large, partly in order to accustom the men to the new 6·5 mm. rifle. In that year they amounted to 100,000 men, exclusive of the Active Army. The period of training for these varied from fifteen to thirty days. Periods of training are very various, as are numbers trained; these latter vary apparently from 40,000 to 100,000, with an average of 80,000.

STRENGTH.

In peace there are two establishments: (1) that which may not be exceeded, (2) that which is anticipated; the latter is the more interesting. The anticipated strength of the *Active Army* is, roughly speaking, as below:—

Officers	13,400
Men	209,000
Officers' horses	10,000
Troop horses	36,000
Total peace strength	222,400

In war the Field Army comprises the Standing Army and the Mobile Militia, and numbers as follows:—

Standing Army—

Officers	14,000
Other ranks	512,000
Horses	94,000
Horsed vehicles (including guns)	16,000
Guns	1,240

Mobile Militia—

Officers	5,200
Other ranks	207,000
Horses	17,000
Horsed Guns	360
Horsed vehicles	3,450
Total Field army in war	738,200

But this is the *Field Army* only. The forces available, after war has continued some time, are given below; but what by far the largest part of these would be worth is unknown. It might depend on the training which could be given to the nominal force of the Territorial Militia, and that in its turn would depend on the number of officers available for training purposes, which would be very limited.

	With the Colours.	On Furlough.	Total.
Standing Army	216,700	546,800	763,400
Mobile Militia	—	478,300	478,300
Territorial Militia	—	2,083,900	2,083,900
Total	216,700	3,109,000	3,325,600

Total Italian enrolled forces trained and untrained, 3,325,600.

War Organization of the Kingdom.

The kingdom is divided into twelve military districts, having twelve army corps, each in two divisions, but the artillery is grouped in eight centres, namely: Turin, Alessandria, Placentia, Verona, Bologna, Rome, Naples, Messina; and the engineer commands are at Turin, Venice, Genoa, Spezzia, Rome, Naples.

The strength of the army corps is about 31,000.

War Organization of the Standing Army.

Twelve army corps, each comprising two infantry divisions, or nine regiments, or twenty-seven battalions;

one cavalry regiment, or six squadrons; two regiments of field artillery, or sixteen batteries; two companies of engineers; one supply service company; one sanitary company.

In war the military forces would be organized in armies of about 100,000 men.

CHAPTER III

FOOD AND FORAGE

THE private carries in his knapsack two days' biscuit, preserved meat and salt. Cavalry and artillery, etc., carry on the horse or the carriage, two days' oats. The convoy carries two days' bread, four days' salt, sugar, and coffee, one day's oats. The reserve park carries three days' biscuit, one day's preserved meat, three days' salt, two days' sugar and coffee, one day's oats. Slaughter beasts are driven with the army.

The army corps when mobilized has thus seven days' biscuit, three days' preserved meat, nine days' salt, six days' sugar and coffee, four days' oats.

The peace commissariat corps only numbers about 170 officers, 160 writers, and 1900 men. It is organized in twelve companies, one for each army corps region. The *personnel* consists of butchers, bakers, etc., and about 700 infantry men are attached to each company for miscellaneous duties. On mobilization these men return to their duties, the commissariat reserves are called upon, each army in the field receives one commissariat depôt, one reserve-ration column, one field bakery. Each army corps

has also one ration column, and one reserve ration column. Other smaller units receive smaller sections. The following are the details of the larger sections :—

	Officers	Men	Horses	2-wheeled Carts	4-wheeled Carts
Commissariat Depôt	8	450	834	400	—
Army Reserve-Ration Column	3	333	624	300	—
Field Bakery	7	316	178	36	24
Corps Ration Column ...	9	367	516	45	92
Corps Reserve-Ration Column	2	113	156	68	1

CHAPTER IV

ACTIVE ARMY

INFANTRY.

There are ninety-six regiments, in forty-eight brigades, or twenty-four divisions. The regiment has three battalions, each of four companies, and, on January 1, 1898, every regiment of infantry or bersaglieri (rifles) had to form a depôt.

	Officers	Men
Peace strength of regiment . .	61	1299
War „ „ . .	76	2811

There are twelve regiments of Bersaglieri, seven of Alpine troops.

Uniform.—Dark blue tunic, grey trousers. *Bersaglieri* have dark blue trousers.

Armament.—6·5 millimetre rifle, system Männlicher-Carcand, sword-bayonet; but it is probable that the old Vetterli-Vitali rifle would also be used in the reserves.

Equipment.—Ninety-six rounds, half in pouches, half

in knapsack; havresack, water-bottle, pair of boots, mess-tin, one-sixth of tent—total weight, 56 lbs. There are to each regiment sixty-seven pioneers, carrying twelve spades, thirty-six pickaxes, twelve axes, etc. Regimental transport carries thirty-six spades, thirty-six picks, thirty-six axes, etc. Including infantry, Bersaglieri, etc., each army corps would have about 24,000 rifles.

Cavalry.

There are twenty-four regiments, each of six squadrons and a depôt. In war, each army corps will have a regiment, the remaining twelve regiments being formed probably into three divisions, to each of which would be attached two batteries of horse artillery.

	Officers	Men	Horses
War strength of regiment . .	45	1073	870
Peace „ „ . .	43	845	740

Uniform.—Dark blue tunic, light grey trousers.

Armament.—Carbine (6·5 mm.), bayonet, long sword. The first ten regiments carry a 9 ft. 9 in. lance.

Horse Equipment.—High saddle, folded blanket behind, two sheepskin saddle-bags, corn-sack, great-coat over pommel, etc.

Horse Conscriptions and Re-mounting.—Horses are bought at from two to three years, and kept in six depôts, of which one is in Sicily, one in Sardinia; including officers' horses, there are in peace about 45,000 horses, of which number cavalry takes about 23,000, artillery about 13,000. The horse supply in Italy is low, not more perhaps than 750,000; but there are some 300,000 mules. Pains are being taken to improve the breed of horses. The horse lasts about nine years; hence some 5000 horses are required each year. The conscription is in the charge

of the mayors of the commune, who must enrol the horses. Each commune must furnish annually a fixed number by list.

Each army corps would have about 1000 sabres and lances.

Artillery.

Twenty-four regiments of field artillery, one regiment of horse artillery, one regiment of mountain artillery, three regiments of garrison artillery. Exclusive of the garrison artillery, there are 207 batteries of six guns each. There has lately been an addition of six batteries to the mountain artillery.

Uniform.—Cavalry tunic with yellow edging, dark blue trousers.

Armament.—Field, mountain, and horse artillery, 9 cm. and 7 cm. guns. Fortress artillery, various—from 45 cm. guns to Nordenfeldts and double-barrelled mitrailleuses. The heaviest guns are for coast defence. The average land defence and siege-gun is the 15 cm.

Each army corps would have sixteen batteries, *i. e.* ninety-six guns.

Engineers.

In peace there are four regiments, each having a depôt; each has from two to three transport companies; the fourth regiment consists principally of pontoon companies, lagoon companies for Venice, railway companies. The first and second are sapper regiments. The third comprises also telegraph companies, and a specialist company. The sapper companies have, each, *in peace*, officers, three or four; men, 100: *in war*, officers, five; men, 265.

Total peace strength of the engineer regiments, 345 officers, 8000 men, 560 horses.

Uniform.—Dark blue tunic, dark blue trousers.

Equipment and Transport.—Each sapper carries an entrenching tool. The transport is in heavy four-wheeled wagons, and light four-wheeled wagons. Each engineer company has a light wagon for tools, and explosives. The heavy wagons carry the engineer park, and bridging materials for the pontoon section.

The war strength of the engineer park with an army corps is three officers, sixty-four troops, sixty-nine horses, twelve four-wheeled carriages.

Each army corps has one engineer park.

Train.

Horse artillery furnishes transport to cavalry divisions, and to special units such as head-quarters of an army. *Field artillery* furnishes transport to army corps and divisions, namely, to the army corps, one corps ammunition column, one supply column, etc.

Army Hospital Corps.

The army in the field is furnished with one section for each infantry division, and one for each army corps, one section for each cavalry division, five hospitals for each army corps, four hospital trains for the wounded of each army. The usual section consists of eight officers, 205 men, thirty-eight horses, ten carriages. The cavalry division section is much smaller. The artillery train supplies the horses, carriages, one officer and a few men.

Uniform generally similar to that of infantry, but with Geneva badge on arm.

CHAPTER V

THE RESERVES

These consist of first, second, and third line reserves. The first line reserves are those to fill up the active army. The second line are the Mobile militia. The third line are the Territorial militia; but this is, properly speaking, a defensive force.

The first line reserves consist of (1) men not above the age of twenty-nine who have served with the colours, and of (2) men not above the age of twenty-nine who have had some training, though not with the colours. Numbers are approximately as follows:—11,938 officers, 383,000 men; (2) 146,000 men. Total officers and men of the active army reserve, 540,000. Besides these, 20,000 quite untrained men are sometimes included.

The Mobile Militia.

Organization. — *Infantry*, fifty-one line regiments, twenty battalions bersaglieri, thirty-eight Alpine companies; *Cavalry*, thirty-one squadrons; *Artillery*, sixty-three batteries of field artillery, fifteen mountain artillery batteries, seventy-eight coast and fortress artillery companies, twenty-four artillery train companies; *Engineers*, fifty-four engineer companies, four engineer train companies.

Uniform.—As in the active army, with slight exceptions.

Total officers and men of the mobile militia, 478,000.

The Territorial Militia.

The strength of the territorial militia is fixed at 324 battalions of infantry, twenty-two Alpine battalions, 100 fortress artillery companies, thirty engineer companies. In this force there are but seven classes of old soldiers as against seven classes of men who have served in the mobile militia, and nineteen classes who have served in neither army nor militia.

Uniform.—Light brown khaki. Army corps distinguishable by shoulder-strap. Total territorial militia, 2,083,000.

CHAPTER VI

THE MARCH

Infantry in masses march ninety-five paces a minute, two and a half miles an hour, eleven miles a day.

Cavalry walk three and a half miles an hour, trot seven, march from seven to twenty-one miles a day.

Field Artillery march three miles an hour.

Bersaglieri march at a kind of short double. To speak from personal observation, Alpine troops and Bersaglieri get over the ground in a wonderful way, the walk or double being a light, swinging, apparently tireless step.

The order of march of a division in presence of the enemy is—

a.	Cavalry screen	interval	2727	yards
b.	Advance guard	„	981	„
c.	Live stock	„	981	„
d.	Main body	„	218	„
e.	Rear guard	„	6218	„
f.	Baggage column			

Camps.—Tents hold three men each. A regiment in line of company columns occupies a front of 425 yards, a depth of 160 yards.

Outposts are in two zones, the outer zone covered by small bodies of infantry. The inner is a zone of resistance, the outer of observation. There are besides—*look-out posts* on hills in front and rear of the line of observation, *examining posts* on important roads, and *patrols.*

CHAPTER VII

TACTICS AND ATTACK

THE *company* fights with one, two, or three sections extended in the fighting line, the remainder, if any, in support. The regulations deprecate "the tendency to exaggerate the front, and develop ineffective action;" but it may be doubted whether the second clause here is a corollary of the first. With modern weapons action in extended line may be more, not less, effective, so long as troops are under command, and do not get out of hand.

The battalion is divided into fighting line and main body—proportions in accordance with circumstances.

Attack should be with as few halts as possible, and as little expenditure of ammunition as possible, until the short ranges at which fire decides the matter are attained. This would be something under 400 yards. Volley firing is recommended at medium ranges. Magazine fire may be useful at the shortest ranges. Independent firing is practised when volley firing is impracticable.

Cavalry attack cavalry in close formation, infantry

and artillery in open formation of groups of three to four men in single line.

Artillery.—The target at the commencement of battle is usually the enemy's artillery, subsequently the supports and main body of infantry. Shrapnel is preferred to common shell. Range-finders are held in little account. The best range-finder is the gun. The object of attack is that part of the enemy's forces most dangerous at the time.

CHAPTER VIII

FORTRESSES

THE passes of the Alps are defended by works on the Ligurian Alps, the Maritime Alps, the Cottian Alps, the Graian Alps, the Alps of the Tyrol, etc. The forts are divided into six groups, the first of which includes the Mont Cenis, and the sixth the forts of Rome.

The capital is protected by a *ceinture* of fifteen forts. There are besides the old walls and several ancient fortresses which cover the suburbs, probably of little value in war.

The plain of Lombardy, one of the great battle-grounds of Europe, is occupied by the Po and its affluents, which are studded with a series of fourteen forts and posts from the sources of the rivers to the Adriatic.

The island and coast fortifications hardly come within the scope of this work. Including those of Sicily and Sardinia, they are about twenty-five in number.

CHAPTER IX

GENERAL

Badges of Rank of Officers.—These are of gold or silver lace on the sleeves and the head-dress, namely :—

Sub-Lieutenant—one narrow stripe.
Lieutenant—two narrow stripes.
Captain—three narrow stripes.
Major—one broad and one narrow stripe.
Lieut.-colonel—one broad and two narrow stripes.
Colonel—one broad and three narrow stripes.

To make fitting preparation for war, and to be able to produce in the field what appears on paper, the great needs of Italy are peace, time, concentration and money. Taxation is severe. Discontent is rife in parts at least of the kingdom ; but it appears that Italian statesmen are realizing their limitations. An effort, apparently earnest, is being made to limit military aspirations to the kingdom itself, and to introduce economics—economics which, in their turn, may affect the efficiency of the army, but which appear to be absolutely essential to the financial existence of the kingdom. Since writing the above Italy has, unhappily as it seems to many, entered on Asian schemes.

Since 1897 the Italian budgets have shown an apparent surplus. The excess of receipts over expenditure in 1897-8 was estimated at 7,424,748 lire, and for 1898-9 it is estimated at 11,946,108 lire. We may probably say with some justice that, notwithstanding the large demands made by the African war, the Italian finances

have during the last few years rested upon a sounder basis. Different methods of estimating revenue account for the less satisfactory, but still not unsatisfactory, figures under State Revenue, given below.

Army Budget for 1897-8, 246,000,000 lire.

Now the Army Budget for 1896–7 was 272,672,560 lire; but the expenditure in Africa during this year was 40,000,000 lire in excess of that for 1897-8. We thus see at once the good results from an economical point of view of Italy's decision to withdraw from an extensive African policy, but we must look for increasing expenditure in some directions, especially in regard to quick-firing field guns.

State revenue, 1897-8, approximately £68,000,000. Expenditure, 1897-8, approximately £69,000,000. Public debt, £518,000,000.

THE JAPANESE ARMY

Population 42,000,000

JAPAN—the England of the East, as it has sometimes been called—seems destined to play a considerable, though not a decisive, part in the re-arrangement of Eastern Asia. For *her* the best chance is an alliance with England, for us such an alliance would be of doubtful omen.

Service.—All males between the ages of seventeen and forty years are liable to the following service—three years in the Standing Army, four years in the Standing Army reserve, five years in the Territorial Army. The National army, or Landsturm, comprises all between seventeen and forty not serving in either of the other armies.

The best way of getting at the strength of the Japanese armies, is to note that at the close of the Chinese war they numbered 70,000 men, in six army divisions, with a reserve of perhaps 200,000.

Organization of the Field Army.—Infantry, twenty-eight regiments of three battalions of four companies; cavalry, seven regiments of three squadrons; field artillery, six regiments of six batteries; coast artillery four regiments; pioneers, six battalions; train, seven battalions. Infantry 48,000, cavalry 3,000.

The army division consists of two brigades, each of two

regiments, and a regiment or battalion each of cavalry, field artillery, pioneers, and train.

General.—The training of officers at the military college and academy is highly commended by competent European authorities. The army system is to a considerable extent that of Germany, and some of the Japanese officers have been trained in Germany and other European countries. Rifles and guns are, many of them, manufactured at home on the best European models. The war indemnity of £38,000,000 exacted from China has been expended on naval and military preparations, but it has not proved sufficient, and Japan is indulging in an increasing debt. It is proposed to raise the army divisions to twelve, giving a peace strength of 145,000, and a war strength of 520,000. It is estimated that about £3,000,000 a year would be required for the maintenance of this force.

THE MEXICAN ARMY

Population of Mexico, 12,500,000, half of them being pure Indians, and most of the remainder mixed breeds, the pure white population numbering about 500,000.

Organization.—Special attention has been attracted to the military capabilities of Mexico by the promulgation of the law of 1897 for the organization of the forces of the Republic. In peace the highest units are battalions, squadrons, and regiments. An infantry battalion numbers 696 officers and men; a cavalry squadron 115 officers and men, and 116 horses and mules.

PEACE STRENGTH.

	Officers and N.C.O.s	Men	Horses and mules
Infantry . . .	5,100	16,650	1,350
Cavalry . . .	2,500	5,950	9,250
Artillery . . .	950	1,850	2,200
Engineers . . .	200	580	225
	8,750	25,030	13,025

The field artillery consists of four battalions, having 104 guns. In peace each battalion has two field and two mountain batteries, each of six guns, and two horse artillery guns, which latter can, if desirable, be formed into a battery and attached to the cavalry. There are twenty-four machine guns.

WAR STRENGTH.

	Officers	Other ranks
Infantry	1,600	32,000
Cavalry	900	8,000
Artillery	400	3,500
Engineers	100	1,000
Reserves of all arms . . .	600	100,000
	3,600	144,500
Total estimated war army . . .		148,100

The *Reserves* consist of the National Guards of the twenty-seven States and of the one Federated District.

Military Districts and Garrisons.—Yucatan and Tampico are garrisoned by regional battalions. Campeche, Tabasco, Acapulco, Coatz-acoalcos, and Salina Cruz have a regional company each; while California has two. Souvra, Chihuahua, and North Carolina have a regional cavalry squadron each.

GENERAL.

It is to be noted that the various states are engaged in organizing auxiliary forces, which, when organized, will form a second line of reserves. Their strength cannot at present be estimated.

A glance at the map, and at the section above on military districts, will show that the army is chiefly distributed along the outskirts of the empire, on the seaboards of the Gulf of Mexico and the Pacific, and on the United States frontier. The Mexican navy is not at present of much account, so that the defence of the Republic must be mainly by land.

THE ARMY OF MONTENEGRO

THIS plucky little State has a population of about 250,000, of whom over 200,000 belong to the Greek Church. The army organization is tribal. The service is for thirty years, but everybody fights as much and as long as he can.

The *war strength* may be 43,000 men.

Uniform.—The only regulation article is a small, round, black, brimless cap with a red top.

Armament.—In 1895 the Tsar presented Montenegro with 30,000 Berdan rifles, 15,000,000 cartridges, and six Gatling guns.

Territorial districts.—The new territorial distribution forming the framework for the war formations provides for eight brigades, or fifty-two battalions, in eight districts.

Mobilization, by word of mouth, telegraph, and bugle call, is very rapid. "In 1887, 6000 men were mobilized on the Austrian frontier between 8 p.m. and 4 a.m." Every man answers to the call as their ancestors have done for some hundreds of past years. Long may it be so.

ARMY OF THE NETHERLANDS

Population 5,004,000

HOME AND COLONIAL

THE Dutch army is a home and colonial force, with two distinct organizations. The home army is a defensive force to guard the "Amsterdam Position" covering the capital, and the "New Holland Water Line," "which protects the richest parts of the country."

"The New Holland Water Line runs from Minden, five and a half miles east of Amsterdam, follows the line of the Vecht to Utrecht (headquarters of the line), and then south, across the Lek to the Waal, just east of Goorkum. This line is very strongly fortified, and the front is almost entirely covered by inundations. From Goorkum the line bends to the west along the broad estuary of the Waal, and is here 'called the 'Section of the Holland Diep and Volkerak,' the commander of which section is assisted by a naval aide."

The above extract from the *Hand-book of the Dutch Army*, by Major White and Captain Agar, is full of suggestive interest to the student of the fate of nations; but space, or want of it, hurries me on.

Liability to service.—All males are registered during their nineteenth year. About 36,000 are annually available; half claim exemption, about half of these on the ground that a

brother is already serving; 10,400 are chosen by ballot. These serve seven years, for the first year with the colours (six months if special aptitude is shown). During the remaining six years troops are on furlough, but are liable to be called up for six weeks' annual training.

Besides this *National Militia*, there is a volunteer force of about 4000 men, who serve from six to eight years with the colours.

Strength, including volunteers—

With colours, about	19,000
On long furlough, about	49,000
Total	68,000

Besides the above forces there is the *Schutterij*, divided into—

Active Schutterij	51,000
Reserve	79,000
Total	130,000

This is a second line of defence of all men between twenty-five and thirty-five not serving in other forces. The reserve is neither armed, uniformed, nor trained. Men of the active Schutterij, who can afford it, provide their own uniforms.

Then there is the *Landsturm*, which includes all men not otherwise enrolled between the ages of nineteen and fifty. Except in war the force is merely a name.

There are also 120 voluntary associations, something like our volunteers, supplied with arms by Government, but supplying their own uniform.

The *garrison artillery* requires special mention. Of this there are four regiments in time of peace, and four regiments and four depôts in time of war. The peace strength

of a regiment slightly exceeds the war strength, which is fifty-one officers and 1728 men.

Military districts.—There are three, having their headquarters respectively at Amsterdam, Utrecht, and Breda. The second is possibly the most important, including as it does *Fort Pannerden*, which protects the sluices which control the proposed fresh-water inundations along the New Holland Water Line, and prevents the enemy from turning the water off into the Yssel.

Uniform.—Line infantry, dark blue tunic. *Cavalry*, dark blue jacket. *Field and fortress artillery*, dark blue tunic, crossed guns on buttons. *Engineers*, dark blue tunic with red piping.

Armament.—Line infantry, 6·5 mm. Männlicher, and bayonet. *Cavalry*, sword and carbine. *Field artillery*, 8·4 centimetre (3·3-in) breech-loading Krupp gun.

Latest State Budget.—138,726,842 gulden.

Army Budget.—23,728,839 gulden.

Of this 1,050,000 gulden is devoted to perfecting the fortress scheme. The gulden florin is generally equal to about 1*s.* 8*d.* of our money.

Notes. A Volunteer Army.—The design of the Dutch Government is to have a volunteer army like ours; but very few volunteer.

The permanent Active Army is in time of peace a term rather than a fact, consisting, as it does, of a permanent cadre of officers and non-commissioned officers, sufficient to drill the annual contingent of about 11,000 militia.

Fire position.—The recent Dutch regulations put this at 700 metres, whereas recent Russian regulations place it at as short a distance as 400 metres.

Dutch Colonial Army.

I can but say a word or two about this. In the West Indies the forces of the Netherlands hardly exist. The total number of armed civilians may be some 1500.

In the East Indies the forces are about 34,000 in number, consisting of 15,000 Europeans, 16,000 natives of Java, and other details. By far the largest section of the forces is in Java, namely, 16,000; Atcheen has 5700; Sumatra 5900. The infantry arm is to be the 6·5 mm. Männlicher repeating rifle; other infantry arms are the chopping-knife, carried by all rank and file, and sawing knife, carried by eight men per company, both of great use in a tropical country covered with jungle.

THE ARMIES OF NORWAY AND SWEDEN

INTRODUCTORY NOTE

In consequence of the present constitutional condition of Norway-Sweden, and indeed also because the armies of the dual kingdom are not much more closely united than the two States themselves, it seems best to deal very briefly with either army separately.

THE NORWEGIAN ARMY

Population of Norway 2,000,000

Liability to service in army, militia, reserves, and secondary militia is from seventeen to fifty, and was last year extended to the northern part of the country, but at present for local defence only. The average number of recruits placed in the Active Army per annum is 8000. There is a heavy annual loss in reserves and recruits owing to emigration.

Peace Strength.

In peace the army consists of cadres, with 2300 officers and non-commissioned officers, and 1200 other ranks; but during the annual exercises, the peace strength of army and militia amounts to 12,000 of all ranks, including recruits.

War Strength.

According to the re-organization scheme, the war strength should be—

Line	25,000
Militia	24,000
Reserves	23,000
Total war strength	72,000

There is also the Secondary Militia; but this force has neither cadres nor military organization, nor obligatory service of any kind in times of peace; hence its importance on the outbreak of war would be very slight.

Budget. — Revenue, £3,590,000. Expenditure, £3,590,000. Debt, £8,500,000. *Army Budget*, £600,000.

General.

It is intended to make increasing use of the reserves for purposes of defence, and as depôt troops, and officers who have left active service with a pension are attached to the militia, to serve on mobilization. This obligation to serve applies even to the lieutenant-colonel of sixty to seventy, who may find himself in charge of a depôt.

THE ARMY OF SWEDEN

Population of Sweden 4,919,000

Liability to service in the army and the reserves is much the same as is the case in Norway. Average number recruited per annum 25,000. The numbers show a tendency to increase. The annual levy is trained sixty-eight days the first year, twenty-two days the second.

Peace Strength.

In peace the army numbers 1900 officers, 36,000 other ranks, with 6700 horses. The infantry numbers 27,200 of all ranks. During the annual training the peace army is at least doubled.

War Strength.

Line	52,000
First levy reserves	196,000
Second levy reserves	79,000
	327,000

The *First and Second Levy Reserves* include the annual classes from 1898 to 1887 inclusive. The oldest men called out in these levies would be thirty-two; the youngest twenty-one.

The *Landsturm* would also provide eight annual classes of men from thirty-three to forty years old, numbering perhaps 190,000 men, and doubtless, in a protracted war, other classes would be available.

Total war strength, 520,000.

Military Organization of the Army and Kingdom.

The army is divided into six army divisions, each assigned to a military district. The districts are as follows:—Helsingborg, Linköping, Stöfde, Stockholm (two divisions), Hernösand. With the exception of Hernösand all these divisional districts are in the south, nor is Hernösand far north.

Budget. — Revenue, £6,212,000. Expenditure, £6,212,000. Debt, £16,290,000. *Army Budget*, £900,000.

GENERAL.

Russia is supposed to cast envious eyes upon the northern Scandinavian ice-free parts. Against such aggression the popular imagination looks upon England as the natural defender, a mistaken confidence probably.

THE PORTUGUESE ARMY

Population 5,082,000

THE reasons for mentioning the army of Portugal are that, at least since the Peninsular War, England has always had a kindly feeling for this State, and also that, especially in South-east Africa, English and Portuguese interests to some extent conflict.

Service is for three years with the colours, five years in the first reserve, fours years in the second reserve. Exemption can be bought on easy terms. Entries for 1897-8 about 16,500.

The peace army is organized in twenty-four line infantry and twelve rifle regiments; ten cavalry regiments, three artillery regiments each of ten four-gun batteries, one six-gun mountain battery, two fortress artillery regiments; one regiment of engineers. There are 4100 horses.

The peace strength of the army, including 2200 Municipal Guard and 4900 customs troops, numbers about 35,500 officers and men, but there is, besides, the colonial army, which numbers 9000.

Total peace forces, 44,500.

War strength, 154,000 officers and men, 23,000 horses, 264 guns.

Military districts.—These are four: Lisbon, Vizen,

Oporto, Evora. There are garrisons at the Azores and in Madeira.

Budget. — Revenue, £11,748,000. Expenditure, £12,347,000.

War Budget.—In dealing with "reis" it is easy enough to be a few thousands wrong, and when one is confronted with intricate figures, involving many millions of these infinitesimally little coins, the danger is proportionately greater; yet to give a war budget in reis would present no idea at all to the mind of any but the Portuguese, hence the need for many arithmetic sums, which seem to bring out the expenditure on war at about £1,400,000.

THE ROUMANIAN ARMY

Population 5,800,000

Liability to service is from the twenty-first to the end of the forty-fifth year, for all Roumanians—in the permanent army for three years, or in the territorial cavalry for four years, or in the territorial infantry for five years; then in the reserve until the age of thirty; from thirty to thirty-six in the militia; from thirty-six to forty-six in the Gloata, or *levée en masse*. Hitherto there have been numerous causes of exemption, but these have now, with few exceptions, been done away with, some diminution of permanent service during the first year being allowed instead.

Peace strength.—The permanent troops number about 54,000. The total peace strength, including these, is about 3200 officers and 114,000 men.

The war strength of the four army corps may be 3600 officers, 167,000 men, 50,000 horses, 450 guns.

Organization and Military Districts.—The organization is peculiar. There are four district army corps, comprising thirty-four regiments of *Infantry*, each of three battalions, and there are also some rifle battalions. The first battalions of the regiments and the rifle battalions are permanently embodied, the second and third battalions are non-permanent, having each a peace cadre of nine officers and forty-four non-commissioned officers and men.

Cavalry.—There are six regiments of Hussars and eleven

regiments of "Calarashi"; all regiments being partly on a permanent and partly on a non-permanent footing. The Calarashi belong to the Dobrudja division, and supply their own horses.

Artillery.—In peace there are sixty batteries of six guns each, and two regiments of fortress artillery for the defence of Galatz and Bucharest.

Engineers.—Two regiments of three battalions of fourteen companies.

Medical Service.—Four bearer companies, etc. There are hospitals at all the district centres, Bucharest, Kraiova, Galatz, and Jassi, that at Bucharest being large and excellent.

Uniform and Distinctive Marks.

Infantry.—Dark blue tunic, dark grey trousers. *Cavalry*, dark blue and dark red tunics. *Artillery*, brown tunic. *Engineers*, dark blue tunic. *Medical Officers*, dark blue tunic. *Badges of Rank.*—Sub-lieutenant, one star on shoulder; lieutenant, two stars; captain, three stars; major, two gold bands on cap, one star on shoulder; lieut.-colonel, three bands, two stars; colonel, four bands, three stars.

Armament.

Infantry.—Männlicher magazine rifle, short bayonet. *Cavalry, Hussars*, front rank, lance, sword, revolver; rear-rank, Martini-Henry carbine and sword. *Calarashi*, carbine and sword. *Horse and Field Artillery.*—7·5 c.m. (9 pr.) Krupp gun.

Budget.

Revenue, £8,880,000. Expenditure, £8,880,000. Debt, £49,620,000. Army expenditure, £1,750,000.

THE RUSSIAN ARMY.

Population of Russia 90,000,000

INTRODUCTORY NOTE

Of all foreign armies, the Russian is the most interesting to English people. The advance of Russia during the past generation has been even more extraordinary than the advance of England, and, like the British advance, it has been natural and uncontrollable. No worthy statesman in either country desires to see war between the two great Powers of the East, but events may prove too much for either Empire. It has long been felt by thoughtful persons that the Eastern Question has shifted from the domes and minarets of Constantinople to the vast table-lands of Central Asia, and the fertile fields of swarming China. In the history of the world invasion and emigration have hitherto been carried from East to West and South. In the approaching century they will perhaps be from West to East and South. Africa has been the Continent of the latter part of this century. Asia will be the Continent of the next.

Sir Edward Grey, a coming man of statesmanlike mind, who seizes opportunities, was the first to point out publicly what had not been unobserved before, that you cannot fight Russia with a fleet. Just as the French army cannot fly to the shores of England, so the

English fleet cannot fly into the centre of Asia; but it has not been sufficiently noticed that in India we possess both a great army and a strong strategical position. It is the earnest hope of considerate persons that the Asian question may be finally settled, as it seems probable that the African question will be settled, without the recourse to war; but should war become inevitable, the fighting men of the Indian armies may be relied on to give a good account of themselves.

I have said nothing directly of China. Those whom the gods doom to destruction they first drive mad, and China seems sunk in even more than Eastern fatalism and torpor; but should a different policy prevail, and China suffer the instruction of our famous Anglo-Indian officers and statesmen, there is still hope for her Empire; or should the south-eastern section of that vast dominion, with the rich valley of the Yang-tse-Kiang, with its innumerous millions, come seriously under our influence, our fighting force would be indefinitely increased for the probable conflict of the future. In any case it cannot be said that Russia has a strong strategic position in Asia. Where is her base? Where can her armies be concentrated? Upon what point shall she direct them?

CHAPTER I

WAR ADMINISTRATION AND SERVICE

Command and Direction.

Even more emphatically than with regard to Germany, the ruler of the Russian Empire is the Captain of the Host; but it may be doubted whether the present Tsar is so practically concerned in military matters as the Kaiser. He has neither the restless nature, the ambition, nor the military aptitude of his brother Emperor, and his knowledge of detail at least is probably far less. For practical purposes the armies of the Russian Empire are usually directed through the *Ministry of War*, either by the Minister himself, or by some master mind among the superior commanding officers. Questions of the highest importance are submitted to the Tsar, matters of less importance are decided by the Ministry.

The Ministry of War comprises various branches. Of these the *Council of War*, presided over by the War Minister, is composed of twenty-two members nominated by the Emperor. These members in their committees treat of questions concerned with the war budget and military law. They inspect troops and assist military establishments, and suggest improvements to the Minister. The higher *General Staff* is not, as in Germany, a practically independent body, but is under the Ministry of War. It is concerned with the organization of the army, manœuvres, camps, fortifications, promotions, rewards, armament, providing horses, the Asiatic provinces, topography, transport, literature, etc.

Service.

By the law of January 13, 1874, with its modifications, the whole male population is, with the exception of those in certain outlying districts,[1] liable to military service from the beginning of the twenty-first to the end of the forty-third year. Cossacks, Caucasian Mahommedans, Asian immigrants, etc., are dealt with by special laws.

In the Standing Army, service lasts for four years, but may be extended to five years.

In the Reserve or *Militia*, service lasts for thirteen years, and during this period men are liable to two trainings of six weeks each per annum. The militia comprises all men fit to bear arms and not in the standing army, from their twenty-first to the end of their forty-third year. It is divided into two levies. The first acts as a reserve for the standing army, and comprises the men who have served in that force, and those taken for the annual contingents who are not fit for active service. The second levy includes the men excused for family reasons, and those finally excluded from the army as not quite fit for service in it.

The service of *Cossacks* commences at the end of the eighteenth year, lasts twenty years, and is divided into three periods. During the first period of three years the men are trained in settlements. In the "Front Category" the Cossacks remain twelve years, and pass the remainder of their time in the "Reserve Category." During the second period the Cossack is at home on furlough, but must keep horse and equipment ready for war.

Non-commissioned Officers are drawn from the ranks.

Officers are recruited from the War schools and Yunker

[1] Since writing the above Finland has been included.

schools. As in Germany, young men of good education who have passed such and such examinations get excused a considerable amount of service. Many of these act as militia officers. Other militia officers come from the army, but their number is insufficient.

CHAPTER II

RECRUITING AND ORGANIZATION

Numbers liable to Service.

In any given year about 1,200,000 men are liable to service. The law admits of many exceptions, and of the 850,000 men who should join the forces each year, perhaps not more than half actually join, leaving a vast reserve of men, though not of soldiers.

Peace Strength of the Army in Europe and the Caucasus	Men	Elsewhere Men
Infantry	497,000	66,000
Cavalry	109,000	10,000
Artillery	107,000	8,000
Engineers	21,000	3,000
Administration . . .	34,000	5,000
	768,000	92,000

There are besides about 36,000 officers, so that in round numbers the

Total Peace Establishment is 36,000 officers, 860,000 men.

These numbers are exclusive of frontier guards, etc., but inclusive of Cossacks and *militia*.

War Establishment	Officers	Under-officers and men
Field Troops.		
Infantry, 73 battalions	19,300	984,000
Cavalry, 716 squadrons } including Cossacks	3,900	120,000
Artillery, 509 batteries } of the 1st period	3,000	100,000
Engineers, 35 battalions, 8 half battalions	800	40,000
Train, 22 to 24 battalions at 5 war transport trains each	400	25,000
Field troops	27,400	1,269,000
Field Reserve Troops.		
Infantry, 649 battalions	10,700	650,000
Cavalry, 580 sotnias Cossacks, 2nd and 3rd periods	2,500	100,000
Artillery, 124 batteries and 18 Cossack batteries	900	30,000
Engineers, 5 battalions	200	9,000
Reserve troops	14,300	789,000
Fortress Troops.		
Infantry, 155 battalions	2,500	170,000
Artillery, 57 battalions, 10 companies, 1 detachment	1,200	82,000
Engineers, 5 battalions	300	10,000
Fortress troops	4,000	262,000
Depôt Troops.		
Infantry	4,400	270,000
Cavalry	800	40,000
Artillery	600	30,000
Engineers	100	6,000
Subsidiary troops	5,900	346,000
Militia.		
Infantry	9,500	686,000
Cavalry	350	22,000
Artillery	450	28,000
Engineers	100	4,000
Militia	10,400	740,000
Frontier Guards	1,000	34,000

Total War Establishment, 63,000 officers, 3,440,000 men.

The Peace Strength of the Russian army is only approximately certain. In point of fact the peace strength in several parts of the Empire is above that given in the lists. In the Caucasus, in Central Asia and East Siberia mobilization is permanent; and besides, there is a continual increase going on. According to *Rediger* and *Von Löbell* the probable *Total Peace Strength of the Russian army is* 1,000,000.

The War Strength and organization are still less certain. There is no reliable information as to how the troops not in the regular army are arranged. Political and geographical considerations would decide. Campaign armies and reserve armies would be formed. Independent cavalry, Cossacks, divisions of technical troops, etc., join their corps circles on the outbreak of war. A sapper battalion of engineers is attached to each army corps, and is split up into companies, one company being attached to each military division. The remainder are at the disposal of the Commander of the Army. In Asia and East Siberia there are no higher cavalry units than brigades, but there is an idea of forming larger sections. It is probable that the *Total War Strength of the Russian Army would reach* 4,000,000, and, in a protracted war, a much larger number.

Military Districts of the Empire.

The Empire is divided into thirteen military districts, under general officers of high rank. These are subdivided into twenty-three localities for recruiting and mobilizing brigades, and the localities are subdivided into circles. The districts and their headquarters are:—

District.	Head-quarters.	District.	Head-quarters.
St. Petersburg	St. Petersburg	Kazan	Kazan
Finland	Helsingfors	Caucasian	Tiflis
Vilna	Vilna	Turkestan	Tashkent
Warsaw	Warsaw	Siberian	Omsk
Kiev	Kiev	Pri-Amur	Khabarovsk
Odessa	Odessa	Don Territory	Novo-Cherkassk
Moscow	Moscow		

In January 1898 two new army corps were formed in Vilna and Kiev.

The Pri-Amur military district has its head-quarters at Khabarovsk on the Amur, and includes regiments and artillery battalions at Port Arthur and Talienwan. Vladivostok is an important military station with contingents of all arms, including sapper, railway, and telegraph detachments.

War Organization of the Army.

The Army in war comprises :—

(*a*) Field troops, brought up to war strength by calling in their reserves.

(*b*) Reserve troops, formed by expanding the peace reserve cadres.

(*c*) Depôt troops, formed on cadres drawn from the standing army, filled by men not required at the front, by militia, etc.

(*d*) Fortress troops, brought to war strength by expanding the peace reserve cadres.

(*e*) Local troops, ditto.

(*f*) The Imperial Militia, a home defence force.

The *Depôt* troops supply the war losses of the units of the *Active* army. The *Reserve* consists of reserve armies, though doubtless it would at need be drawn on to supply

contingents to the army in the field. The militia, though a defensive force, would at need be used for purposes of offence.

CHAPTER III

FOOD AND FORAGE

Rations—General.

Officers as a rule provide their own rations, the allowance varying from 12*s.* 8*d.* in the field, or 6*s.* 4*d.* on the march, for officers commanding regiments, down to 2*s.* in the field and 1*s.* on the march for subalterns. When officers cannot obtain their own supplies, they are entitled to the private soldier's ration, together with one pound of meat and half-a-pint of brandy.

Captain Macbean gives the following daily scale of rations for a soldier in time of war.

Biscuit . .	1 lb. 13 oz., or equivalent in flour or bread.
Fresh meat .	$7\frac{1}{4}$ oz., or $3\frac{5}{8}$ oz. ham.
Groats . .	$4\frac{1}{2}$ oz.
Salt . .	$\frac{4}{5}$ oz.
Tea . .	$\frac{9}{10}$ oz.
Sugar . .	$\frac{9}{10}$ oz.
Spirits . .	0·27 pint.

The General in command may also order pepper ($\frac{3}{10}$ oz.), and vinegar (0·18 pint), and extra rations of meat and spirits.

The field forage ration is as follows :—

	Oats	Hay	Straw
	lbs.	lbs.	lbs.
Guard cuirassiers, and Guard artillery draught horses . . .	11·935	9·02	3·6
Guard light cavalry, and Guard artillery riding horses . .	10·806	9·02	3·6
Line cavalry, artillery, and engineer horses	9·323	9·02	3·6
Transport horses . . .	12·375	13·53	—

In the Russian army no emergency ration is issued.

Infantry and Sappers carry on the person two and a half days' biscuit and salt, which is consumed and resupplied from regimental transport. The regimental transport carries for infantry, one and a half days' biscuit, three days' groats; for sappers, five and a half days' biscuit, eight days' groats. The divisional transport carries four days' biscuit, and four days' groats. Total for infantry, twelve days' biscuit, ten days' groats; total for sappers, sixteen days' biscuit, seventeen days' groats.

Cavalry and Horse Artillery carry on the saddle one and a half days' biscuit, two days' groats, two days' oats, two days' hay. The regimental transport conveys one day's biscuit and two days' groats. The divisional transport conveys four days' biscuit and four days' groats, and the transport columns four days' biscuit and groats, and three days' oats. Total ten and a half days' biscuit, twelve days' groats, five days' oats, two days' hay.

Field Artillery carry, on the horses, two days' oats; on the carriage, three days' biscuit, one and a half days' oats, two days' hay. The regimental transport carries one day's biscuit, three days' groats; the divisional transport, four days' biscuit, four days' groats, and in the transport columns there are four days' biscuit and groats, and three days' oats. Total, twelve days' biscuit, eleven days' groats, six and a half days' oats, two days' hay.

For Transport Horses there is carried on the transport carriages, three days' oats and two days' hay; in the transport columns, three days' oats.

Besides the above, six days' salt, four days' tea and sugar, or less, are carried in regimental baggage. The *transport columns* are the *second line of supply*, and follow the troops at the distance of a day's march, carrying eight days' salt, ten days' tea and sugar, and the other supplies mentioned above. Each *transport column* can carry supplies for 10,000 men, and oats for 1600 horses. Slaughter cattle are driven with the troops.

On the lines of communication *magazines* are formed under the intendance department, which supply the field commissariat. These are replenished by requisitions, contract, purchase, supplies forwarded from the base, or by a combination of several of these methods.

Requisitions and Billets.—Requisitions must be first approved by the General in Command. Troops on the march are often billeted on householders, who must supply the full war ration or its equivalent, the price to be payed being settled by the intendance.

CHAPTER IV

THE ACTIVE ARMY

Infantry.

Organization.—The infantry consists of 209 regiments, each of four battalions of four companies, and of a non-combatant company, seventeen companies in all. Of these, twelve are regiments of the Guard, sixteen are Grenadier regiments, 181 are "Army" infantry regiments.

A brigade comprises two regiments; a division, two brigades. Companies are commanded by captains; battalions by lieutenant-colonels; regiments by colonels.

Peace Strength of Units.—Approximate numbers: The company has four officers and 112 N.C.O.s and men. The battalion has seventeen officers and officials, and 448 N.C.O.s and men. The regiment has seventy-seven officers and officials, and 1887 N.C.O.s and men.

War Strength of Units.—Approximate numbers: The company has four officers and 244 N.C.O.s and men. The battalion has nineteen officers and officials and 981 N.C.O.s and men. The regiment has eighty-six officers and officials and 4024 N.C.O.s and men. In the regiment there are 150 non-combatants of men, and seven non-combatants of officials; also 158 horses and seventy-seven carriages.

The above are the normal formations; but the peace establishment nearly approaches the war establishment on the German, Austrian, Black Sea and Asiatic frontiers.

Uniform.—Dark green double-breasted blouse and knickerbockers. Dark green flat cloth cap. Long boots reaching to the knee. Heavy cloth greatcoat of light brown. Sheepskin coat in winter, with camel's hair cloth hood. In summer white linen blouses and trousers. An unusual detail is the footcloths worn instead of socks. In winter gloves are worn something like those in use for children in England, or climbers in the Alps; but they have three compartments, thumb, forefinger, and a third compartment instead of the two in such gloves.

Regimental Marks.—The Guards have coloured collar and cuffs, etc., and piping on the knickerbockers. In Grenadier Army regiments the number of the regiment is shown on

the cap band, and that of the division on the shoulder-strap.

Rank is shown by stars placed on the shoulder-straps.

Armament.—N.C.O.s and men are armed with the 1891 magazine rifle, the magazine containing five rounds. The bayonet is quadrangular and carried fixed. Smokeless powder is used. The man carries 120 rounds, and 300 more rounds are carried for him in the regimental carts, and in the parks.

Officers, officials, sergeant-majors, and other inferior officers are armed with swords and revolvers—the point of the revolver bullet is flattened to make a bigger wound, a useful precaution in the case of a weapon which is employed at close quarters.

Equipment.—A belt supports thirty rounds in a pouch on each side of its clasp, and the Linnemann tool in a case on the right side. The rolled greatcoat is carried over the left shoulder; beneath is a bandolier holding thirty rounds; a reserve pouch with thirty rounds hangs by a strap over the left shoulder, and is attached to the waistbelt on the left side. The waterproof canvas kit-bag is suspended over the right shoulder towards the left buttock. It contains:—Shirts, two; drawers, one pair; foot-cloths, two pairs; towel; mitts, one pair; biscuit, 4·5 lbs. in two bags; salt, 1⅛ oz. in a bag; drinking cup; housewife; soap; cloth for repairs; materials for cleaning rifle. On the top of the kit-bag, and hanging over the right shoulder, is the aluminium water-bottle which holds 1½ pints. To the greatcoat is strapped a pair of boots, and the aluminium mess-tin which encloses the end of the roll.

The materials for the tent are divided between each six men.

Total weight carried, 58·22 lbs.

The total number of tools carried on the person and in the divisional transport per regiment is 1280 light spades, 320 light axes, 256 heavy spades, 128 heavy axes, forty-eight mattocks, forty-eight pickaxes, sixteen crowbars.

Transport.—The company has a one-horse ammunition cart, carrying 6000 rounds, and two two-horsed baggage wagons. The transport of a regiment is in two lines. The first line has twenty-three carriages and forty-one horses, and marches close behind the regiment. The second line has fifty-four carriages and 116 horses, and marches with the heavy baggage. The first line includes the medical store carts and ambulance wagons.

Total regimental transport, seventy-seven carriages, 157 *horses.*

Rifles.

These are light infantry troops with a better stamp of recruit than the ordinary infantry. *In Peace* there are thirty-six regiments of two battalions, and thirty-six independent battalions. *In War* there are four regiments of four battalions, thirty-two of two, and thirty-two independent battalions. The peace and war strengths are much the same as those of the infantry regiments. There are twelve East Siberian regiments of the same strength in peace as in war. *Uniform*, *Armament*, and *Equipment* correspond to those of the infantry with slight differences; for instance, the collar is green with crimson piping. The Caucasian native battalions (four) wear a Circassian costume with the conical black lambskin cap. The *Regimental Transport* is in two lines, and consists of forty-one carriages and eighty-four horses. In Asia the

transport would probably be carried by pack-animals, such as camels.

Frontier Line Battalions serve in the Asiatic districts. Of these there are thirty-one, consisting of *Turkestan*, and *Eastern* and *Western Siberian* battalions. Their *Peace Strengths* vary from 480 to 1089 N.C.O.s and men. Their *Uniform*, *Armament* and *Equipment* are much the same as those of the infantry.

Cossack Infantry.—Of these there are twenty battalions with an average peace strength in N.C.O.s and men of about 900. Their *Uniform*, *Armament*, and *Equipment* correspond to those of the Cossack cavalry, and will be described under that head.

Fortress Infantry.—In time of peace the Fortress Infantry consists of one regiment of five battalions, seventeen of two battalions, and thirteen single battalions. "On mobilization each unit, whether regiment or battalion, expands into a fortress regiment of five battalions of four companies, thus giving thirty-one regiments. The battalions, etc., are named after the fortresses to which they belong, thus: 3rd Warsaw Fortress Battalion." In peace the strength of a fortress battalion is 1717 in N.C.O.s and men, and in war it amounts to 4847; the *Vladivostok* regiment has, both in peace and war, seventy-eight officers, eight officials, 4810 combatant and 113 non-combatant rank and file, and twenty-one horses. *Uniform*, *Armament*, and *Equipment* are, with slight exceptions, the same as those of Line infantry.

Local Infantry.—In distant parts of the Empire where there is no active army, there are 150 *local detachments* varying in strength from forty-eight to 511 men. They wear on their caps the letter M (Miestnii = Local).

Depôt Infantry.—Infantry regiments and rifle brigades

in Europe and the Caucasus form depôt battalions on mobilization. Outlying battalions and groups of battalions mobilize companies.

Cavalry of the Regular Army.

In time of war there are sixty-eight regiments, and two independent divisions of two squadrons. The principal items are four regiments of Guard Cuirassiers of four squadrons, six regiments of Guard light cavalry of six squadrons, and fifty-four regiments of Line Dragoons of six squadrons. The *Peace Strengths* are—in four-squadron regiments, thirty-two officers, five officials, 779 N.C.O.s and men, and 585 horses; in six-squadron regiments thirty-eight officers, five officials, 1100 N.C.O.s and men, and 905 horses. *In War*, the *strengths* are—for four-squadron regiments, thirty-five officers and officials, 673 N.C.O.s and men, 676 horses, and twenty-three carriages; for six-squadron regiments, forty-one officers and officials, 975 N.C.O.s and men, 1016 horses, and twenty-nine carriages.

Each regiment contains a detachment of sixteen men and an officer specially trained for scouting duties, long distance rides, and so forth, as well as another detachment of sixteen men and two officers, trained as pioneers to destroy railways and telegraphs, and to act as signalmen and telegraphists. The latter detachment has, as yet, only been formed for the army corps districts of Warsaw and Vilna, but the system will probably be extended to other districts.

Uniform.—The Cuirassiers wear dark green single-breasted tunics with distinctive facings, blue breeches with piping the same colour as the facings, white forage caps,

greatcoats as in the infantry, with collar patch of the regimental colour, knee boots.

Line Dragoons wear dark green double-breasted tunics, yellow or white metal buttons, the patch on the collar and shoulder-straps being of the regimental colour; on the shoulder-strap is painted the regimental number.

Armament.—All the Russian cavalry is armed with curved sword, rifle, and bayonet. Weight of sword and scabbard, 3 lbs. 13 oz. Outside the sword-scabbard is the bayonet-scabbard. The rifle is slung across the back from left to right. It is similar, except in minor details, to the infantry rifle. The man carries on his person forty rounds, and 179 more per rifle are carried in the regimental transport and parks. Officers are armed as in the infantry.

Equipment.—Two wallets are carried on the saddle, and two saddle-bags behind it. The corn sack goes in front, and over it the rolled cloak, with intrenching tool and piquet-post strapped to it. Kit, provisions, and spare horse-shoes are packed in the saddle-bags. The horse's blanket, canvas water-bucket, and mess tin, are behind the saddle. What with oats, groats, bags, bucket, and blankets, the trooper must look something like the knight in *Alice in Wonderland.*

Total weight of clothing, equipment, arms, and saddlery, 119 lbs.

The Warsaw and Vilna district special pioneer detachments mentioned above carry in a one-horse wheeled cart two telegraph instruments, two telephones, two heliographs, 280 pyroxyline cartridges for demolitions, crowbars, sledge-hammers, etc.

Transport.—As in the case of the infantry, the regimental baggage is divided into two lines, the first line including ammunition, hospital and veterinary carts.

Total.—First line, sixteen one-horse carts, six pack horses. Second line, eight one-horse carts, five two-horse wagons.

Cossack Cavalry.

Since the days when the Allied Armies entered Paris, no part of the Russian army has taken such hold upon public imagination as the Cossack Cavalry. Extending as they do from the Don to the Amur, they pervade a large part of the European and Asiatic possessions of the Tsar.

In peace the regiments number fifty-two; the squadrons 317, there being forty-four regiments of six squadrons, eight of four, and twenty-one independent squadrons. In war there are 130 regiments of six squadrons, eighteen of four, and fifty-three independent squadrons, making 905 squadrons in all. We usually speak of the Don Cossacks, and as a matter of fact by far the largest number of the regiments is supplied by the Don province, to the north-east of the Sea of Azov, and the Kuban province immediately below it.

In peace, only first category regiments are maintained. On mobilization, second and third category regiments are usually added. The *war strength* of the several regiments does not greatly exceed their strength in time of peace, and varies from about 660 to 1100 N.C.O.s and men. Cossack regiments have specially trained scouts. In the Vilna and Warsaw districts, pioneer groups are attached to the Cossack cavalry regiments as to the regular cavalry.

Uniform.—Double-breasted frock-coat with full skirts reaching to the knees, with variously coloured piping, and the regimental number on the shoulder-strap. Wide trousers with broad stripe the same colour as the coat

piping. Greatcoat with patch of coloured cloth on the collar. Flat forage cap without peak. The Ural, Transbaikal, Amur, and Ussuri Cossacks are recognizable by their high black busby with its long wool and coloured top. The colour of the uniform in the several armies is either blue or dark green. Cossacks of the Guard have short single-breasted tunics, scarlet, light blue, or dark blue—scarlet in the Emperor's regiments.

There are other local dresses, such as red leather trousers in Turkestan, and dark grey Circassian frock with scarlet trousers in Kuban regiments.

High boots are worn, and Cossacks wear no spurs, but carry a whip with a long lash.

Armament.—The Cossack sword has no guard. Kuban Cossacks carry it on a waist-belt to the left, with a dagger to the right. The rifle has no bayonet. It takes the same ammunition as the infantry rifle. Front ranks *only* carry a lance nine feet long, with no pennon. This seems a good plan. It is always puzzling to the civilian what use lances can be to any but front ranks of cavalry, in the charge, that is to say, and *mêlée* which follows. Kuban Cossacks and some others carry no lance.

Equipment resembles that of the regular cavalry, except that the men carry forty rounds over the left shoulder in two bandolier pouches. The equipment of the horse is as simple as possible. The bridle is a simple snaffle bit and reins; the saddle—a tree resting on felt pads covered with leather with a padded valise on the top of it. To the rear arches two saddle-bags are attached. The rolled greatcoat and hood are strapped in front of the saddle; but Kuban and Terek Cossacks carry their folded "burka" on the top of the saddle-bags. The kit is carried in the valise on the saddle.

Total weight of Cossack's clothing, arms, equipment, and saddlery, 97 lbs.

Transport.—The transport is much the same as for the regular cavalry, and is organized in two lines, the transport per four-squadron regiment being proportionately weaker than that for six-squadron regiments.

Depôt Cavalry.

Each cavalry regiment has a cavalry depôt cadre, which trains re-mounts for it in peace, and in war furnishes horses and men to supply the place of casualties. On mobilization, these depôt sections receive from the regiment in the field two officers and men to train drafts. Cossack cavalry have forty-three depôt squadrons—one for each chain of three regiments of the first, second, and third categories.

Uniform, etc., as for the regiment in the field.

Re-mounting and Conscription of Horses.

The resources of Russia are large, especially in parts of Siberia, where there is a horse for almost every inhabitant, and in the Don and adjoining districts. The total number of horses is estimated at 23,000,000. In peace, the army takes about 140,000, of which the cavalry, including Cossacks, takes 100,000, the artillery 27,000, and other arms 13,000. Since the Russian horse is supposed to last ten years, the annual supply to the army is from 10,000 to 11,000. Cavalry horses are purchased at from three to six years old. The breed is Tartar, crossed with various other breeds, and the horse is an excellent one. Most of the Russian horse depôts are in the south-east of Russia in Europe.

The number of horses required in war by the regular army would be, perhaps, 300,000, and by the Cossacks 150,000 more. Cossacks must provide their own horses. The horses for the army are provided by re-mount officers, who receive a fixed sum per horse, and make what they can out of it. For conscription purposes the Empire is divided into districts such that the horse can arrive at the depôt in one day from the place where he is obtained. A fixed price is paid, and, except in case of urgent need, the proprietor is not to be deprived of more than half of his horses, while for every horse up to the mark which he yields voluntarily he is let off two.

Artillery.

Speaking at Gloucester on the last night of the year, Sir Charles Dilke called attention to the great increase of the Russian artillery in 1897 and 1898. Von Löbell states that altogether sixty-eight batteries and one mountain battery have been added. Four new field artillery brigades of six batteries each take twenty-four of the new batteries. The Caucasian brigades and their reserves take five, but those brigades lose one of their mountain batteries. Light batteries seem likely to supplant mountain batteries in the outlying parts of the Empire, where these latter have been hitherto used.

Summary of Artillery in Europe and the Caucasus.—Fifty-two brigades (forty-five of the line, three Guard, and four Grenadier brigades), 364 batteries.

Strength.—The average peace strength of a battery is four guns, six officers, 179 N.C.O.s and men, and forty-eight horses. The average war strength is eight guns, six

officers, 260 N.C.O.s and men, and 200 horses. Most Asian batteries are always at war strength.

Uniform.—Field artillery wear dark green blouse with scarlet shoulder-strap, bearing the brigade number or letter, dark green trousers, with scarlet piping in the Guards. The blouse of the Guard has black velvet collar and cuffs, with scarlet piping and yellow lace. The forage-cap dark green, with black band, bearing the battery number, and red piping. The greatcoat is light grey, with black patches on the collar, edged with red piping. Drivers wear spurs.

Armament.—The field guns are Krupp, made at the Obukkov works. There are four patterns—"battery," "light," "improved light," "mountain." The approximate extreme range of all guns is 4400 yards. Batteries, heavy and light, have eight guns, all six-horsed. Heavy batteries carry on the gun-limber eighteen projectiles, and ninety in the wagons. The number per light guns are thirty and 120. Each field battery carries thirty-two spades, twenty-four axes, four pickaxes, four mattocks, four saws, two crowbars.

Arms and Equipment of the Men.—Forty men per battery have revolvers. All N.C.O.s and men have swords. Belts in the Guards are white, in the line black. Kits are carried in the saddle-bags, or on the carriages. The mounted men carry the remainder of their equipment as in the cavalry regiments, the dismounted men as in the infantry.

Transport.—Each field battery has one four-horsed store wagon, four two-horsed store wagons, and three two-horsed supply wagons.

Horse Artillery.

There are twenty-three line batteries, five Guard batteries, twenty-three mountain batteries. The line batteries are always, and the Guard batteries are in war, attached to the cavalry divisions. In war the number of officers and men of a horse battery is 204, of horses 241, guns six; the peace strength is somewhat less.

Uniform.—Much the same as that of the field artillery, with scarlet girdles. The battery number is on the cap-band and the shoulder-strap.

Armament.—Very similar to that of the field light artillery. The gun is sixteen inches shorter. All material can if necessary be carried on packs. Each battery carries ninety rounds per gun. All ranks carry swords and revolvers. Each battery has thirty-two spades, eighteen axes, four pickaxes, four mattocks, four saws, two crowbars.

"The Russian horse artillery material is very light, and free use is made of springs and buffers."

Transport.—Ten carriages and twenty horses.

There are also twenty Cossack horse artillery batteries in time of peace, and thirty-eight in time of war. Of the thirty-eight, the Don line batteries number twenty-one. The war strength of the Don line battery is 212 officers and men, 245 horses, six guns, twenty-three carriages. The uniform is dark green coat and cap and dark grey trousers, with distinctive marks. The armament is the same as that of the regular batteries.

Howitzer Artillery.

The 1st East Siberian artillery brigade has seven howitzer regiments, and two howitzer batteries; twenty-six batteries in all, each of six guns.

Depôt Artillery.

In peace the depôt artillery consists of sixteen batteries, which on mobilization supply cadres for fifty-six batteries.

Foot Artillery.

Of this there are—

56 fortress battalions.
4 siege battalions.
10 fortress companies (six at Vladivostok).
2 fortress detachments.
5 sortie batteries.

The fortress and sortie batteries are usually attached to special fortresses. The *uniform* is similar to that of field artillery, but with black collars and cuffs piped with scarlet. In fortress battalions the shoulder-straps bear the initials of the fortress. *Armament* and equipment of *personnel* corresponds generally to that of infantry.

Siege Parks.—Of these there are three, two of them being in European Russia, namely, half of Number 1 park at Novo-Georgievsk, and half at Brest-Litovsk. Number 2 park at Kiev. Number 3 in the Caucasus, at Alexandropol. The guns of the future are to be non-screw lightened 8-inch guns of 64 cwt., 6-inch guns, and some mortars. At present each European park has 424 guns, and the Caucasian park 240 guns.

Engineers.

Organization.—In peace there are six brigades and a Caucasian brigade. In war these brigades would be broken up, and their units distributed to army corps and armies. The brigades comprise twenty-seven sapper battalions, eight pontoon battalions, and seven engineer parks.

Strength. — In peace a European battalion has 24 officers, 518 N.C.O.s and men, the Asiatic battalion being somewhat smaller. In war most European battalions have about thirty officers, 1100 N.C.O.s and men, 320 horses, and 120 carriages; Asiatic battalions being somewhat smaller, with less than half the number of horses and carriages. The establishments include sapper, pontoon, telegraph, and heliograph contingents.

Uniform.—The uniform is the dark green blouse with scarlet shoulder-straps bearing the number of the unit, except in Guard and Grenadier battalions. The patch on the grey greatcoat is dark green (black in the Guards). The Asiatic units bear the initials of their districts.

Armament and Equipment.—Mounted men carry dragoon swords only. Dismounted men have dragoon rifles and bayonets, and carry thirty rounds. Mounted men are equipped as field artillery drivers; dismounted men as infantry of the Guard.

Sapper Battalion Equipment consists of 100 light shovels, forty steel shovels, seventy light axes, twenty-four light and sixteen heavy hatchets, fifteen pickaxes, twenty-five mattocks, 100 sand-bags, 800 detonators, 720 lbs. pyroxyline, and numerous other smaller details; all carried in three wagons.

The Telegraph Companies carry sixteen and two-thirds miles of air-line, and twenty-three and one-third miles of cable; but in Asia sixty-seven miles of air-line: also both in Europe and Asia four Morse apparatus, twelve batteries of six elements, eight telephones, two heliographs, four signalling apparatus, 630 poles, 825 insulators, etc.

Pontoon Battalions carry 126 light shovels, seventy light axes, ten pickaxes, twenty mattocks, twelve pontoon end sections, forty-four middle sections, six trestles, one

anchor boat with stores necessary for bridging, eighty pyroxyline cartridges, 200 detonators, two telephone stations with 7000 feet of insulated wire, forty large shovels, sixteen heavy and twenty-four light axes, eight mattocks, five pickaxes, etc. A battalion using all available pontoon sections can form a bridge of from 230 to 400 yards, according as it is to be used for light or heavy weights.

Transport.—The *Equipment* of sapper battalions is carried in twenty-four one-horse carts. In Asia it would probably be carried on pack animals. The *equipment* of a pontoon battalion is carried on fifty-six pontoon wagons, thirty-six baulk wagons, one anchor boat wagon, and other wagons, all four-horsed, and two one-horsed forage carts. Other items of transport are of no special interest.

Railway Troops.

There are seven railway battalions, including the first and second Transcaspian and first Ussuri battalions, which are permanently employed on these railways, and are always on a war footing. The Ussuri battalion consists in peace and war of forty officers, 1634 N.C.O.s and men, eighty-five horses, and forty-two carriages. (The Ussuri river runs into the Amur at the extreme north-eastern border of Manchuria.) The Ussuri battalion comprises five companies, each of which has instruments, tools, and stores necessary for surveying and railway operations, including 299 shovels, thirty-five picks, seventy crowbars, telegraph apparatus for six stations, blasting and bridging stores, and so forth. The *transport* consists of twelve one-horsed carts and twenty-one two-horsed wagons. The *uniform* is the same as that of sappers, with special letters denoting the particular railway battalion. These details are given owing to the interest attaching to the Trans-Asian railways.

Balloon Detachments.

In war there would be one for each army in the field. At present there is merely an international balloon park of seven officers, and eighty-eight N.C.O.s and men.

Fortress Engineers.

In peace there are twelve sapper companies at various forts, including Vladivostok. In war these companies are doubled, except at Vladivostok. There are also fifteen submarine mining companies, etc.

Depôt Engineers.

On mobilization, four depôt battalions are formed, with an effective each of seventeen officers and 1650 rank and file. For these there are permanent cadres of seventeen officers and 280 rank and file. Uniform, equipment, etc., correspond to those of active battalions.

The Frontier Guard.

This numbers 35,000 men, and is a sort of land and sea coastguard to protect the Empire against smugglers and unauthorized persons. It can be used for war.

Military Topographers.

Nine generals, twenty-five colonels, fifty lieut.-colonels, 215 captains, and 155 lieutenants are employed in small groups in the survey of the vast Empire. This corps is recruited from the military topographical schools. *Uniform*, dark green with light blue piping.

Veterinary Service.

This is under the medical department. The horse infirmaries are *regimental*, *administrative* for transport, and

station for lines of communication. First aid is given on the battle-field.

The Intendance.

This department superintends the supplies of food, forage, clothing, equipment, and cash. With each head-quarters of an army there is an intendant and staff.

Pay Department.

The chief field paymaster, a second-class official, is directly under the Commander of the army. With his staff he supervises the issue of cash.

Medical Department.

The medical establishment for an infantry regiment of four battalions is five surgeons, twenty-eight dressers, one sergeant, three orderlies. The hospital numbers sixteen beds. The garrison hospitals have beds for from 150 to 800 men, with from four to eighteen medical officers. These garrison and regimental staffs form cadres from which come the medical units on mobilization, the extra medical *personnel* being taken from the reserve.

Uniform of Surgeons.—Dark green tunics and trousers, the cuffs and collars having scarlet piping. Dark green forage-cap having a dark green band with scarlet piping, narrow shoulder-pieces. Subordinates wear the uniform of the regiment.

Sanitary Divisions.—Each active or reserve infantry division in the field has a sanitary division comprising one divisional and two mobile hospitals. The divisional hospital corresponds to the British bearer company, the mobile hospital to the field hospital. The divisional hospital brings in wounded, and forms a dressing station.

The main dressing station is distinguished by the national and Red Cross flags. Its *strength* is one combatant officer, five surgeons, 285 N.C.O.s and men, including twenty-nine medical subordinates, seventy-eight horses, twenty-seven carriages, including eight four-horsed ambulance wagons, three one-horsed medical store carts, sixteen two-horsed store wagons. In the transport is carried sixty stretchers, four dressing tents, two operating tables, and various material. The divisional hospital forms the second medical line, the first being regimental.

The third line is the mobile hospitals. Each will take ten officers and 200 men. To them are brought men from the main dressing station. They are marked by flags, and they empty as soon as possible, so as to follow their division. The strength of each is five surgeons, four officials, 107 N.C.O.s and men, four Sisters of Mercy, fifty-seven horses, and twenty-five carriages, namely, nineteen two-horsed and one four-horsed store wagons, four one-horsed medical store carts, and one four-horsed carriage for the Sisters of Mercy. The stores carried include 210 bedsteads, 105 small tables, forty stretchers, and three tents for twenty men each.

Besides the above hospitals, there are in war ninety-six infantry division mobile hospitals, two for each division, and 240 reserve field hospitals on lines of communication. There are also mobilized twenty military sanitary convoys under the Staff of the army.

Train Battalions.

In Peace, there are five battalions and a Caucasian battalion under the staffs of the Military Districts. These battalions have either four or two companies; twenty-two companies in all. *On mobilization*, the twenty-two

companies form twenty-two battalions, each of five columns, each column with its carriages carrying four days' biscuit and groats, eight days' salt, and ten days' tea and sugar for 10,000 men, and three days' oats for 1600 horses; but if the column is a pack horse column, then the same proportions of supplies for 4000 men and 600 horses.

In Peace, a two-company battalion numbers 214 officers and men, forty horses, twenty carriages; and a four-company battalion 414 officers and men, eighty horses, forty carriages, the number of officers being less in proportion.

Supplementary Train Battalions may be formed at the discretion of the commanding officer. No cadres exist for these.

The *Uniform* of train battalions is dark green with red piping, and special letters with the battalion numbers on the shoulder-strap.

The *Equipment* or *Material* varies from 108 to 172 wagons, carrying supplies for general use. These wagons are *requisitioned*.

Divisional Supply and Transport Columns.

The reserve stores for sapper battalions are carried in the battalion train, and for artillery batteries in the supply and transport columns of the infantry or cavalry divisions to which they are attached. Each column includes a sanitary division of three hospitals. No cadres are maintained for the columns in peace, merely lists of officers to be supplied to them in war. The column of an infantry division has 194 carriages.

Higher Tactical Units of the Army.

Infantry Brigade.—Two regiments, or 174 officers and 8050 N.C.O.s and men, 318 horses, 24 guns, 155 carriages, under a major-general.

Rifle Brigade.—Fighting strength 7080 rifles, twenty-four guns.

Infantry Division.—Two infantry brigades with their guns, supplies, sappers, etc., or 400 officers, 19,902 N.C.O.s and men, 4385 horses, 48 guns, 1170 carriages.

A Typical Cavalry Brigade.—Fifty-eight officers, 1886 N.C.O.s and men, 1969 horses, fifty-five carriages.

A Typical Cavalry Division has a fighting strength of 3446 sabres and lances, twelve guns.

The Army Corps consists of two infantry divisions with their guns, one cavalry division with its guns, the corps engineers, one train battalion; or 1237 officers and officials, 47,765 N.C.O.s and men, 16,965 horses, 124 guns, 3717 carriages.

The Army.

In *Europe* and the *Caucasus* the active army would take the field with twenty-four army corps, comprising fifty-one infantry and twenty-three cavalry divisions, and two rifle brigades. In *Asiatic* Russia there is no unit higher than the brigade.

CHAPTER V

THE RESERVES

Infantry.

The Reserve Infantry consists of cadre regiments or battalions, which in war expand from two-fold to sixteen-fold. "The principle in all is the same—a strong, well-drilled cadre upon which to embody the reservists."—*Captain Macbean.*

In European Russia there are fifteen line and one Guard reserve regiments of eight companies, and fifty reserve battalions of five companies.

In the Caucasus there are eight reserve regiments of eight companies, and ten reserve battalions of five companies.

In Asia there are ten reserve battalions of five companies, and five Turkestan cadre battalions.

The appropriate *strength* of the reserve cadre regiments, generally of two battalions, is forty officers and 829 N.C.O.s and men, in peace. In war, these numbers mount up to seventy officers and 3942 N.C.O.s and men. The battalions in Asia and in remote parts of European Russia are specially strong. The *uniform* is the same as that of line infantry, number and initials being borne on cap-band and shoulder-strap. The *transport* is as in the line.

Imperial Militia Infantry.

The Militia, though a defensive force, can be used, at any rate so far as its first ban is concerned, to reinforce the active troops; otherwise it forms distinct corps. It is

to consist of forty divisions, or 640 battalions, for the organization of which provision has been made. Each battalion will be composed of seventeen officers, and 983 N.C.O.s and men, with forty-two horses and sixteen carriages. The *Uniform* will depend on the Governmental district in which the battalion is recruited, but all militiamen are to wear red shoulder-straps, and all those of any one battalion are to be clothed alike. The ranks are armed as in the line infantry, except that the Berdan rifle is used. *Clothing and Equipment* are provided by the commune, with the exception of several minor articles of dress, and spades, axes, and other tools, supplied by Government. The *Transport* for each battalion is sixteen two-horsed wagons.

Imperial Militia Cavalry.

On mobilization, eighty squadrons are to be formed, each of 155 men and 158 horses, with uniform similar to that of the line Dragoons, but bearing the Militia cross on the front of the forage-cap, and the number of the unit on the shoulder-strap. Arms, equipment, and ammunition are as in the regular cavalry, but the Berdan rifle and Smith and Wesson revolver are used. Men armed with rifles carry thirty-six rounds, those armed with revolvers eighteen.

Reserve Field Artillery.

In peace there are seven brigades, including the Caucasian brigade, divided unequally into forty-one batteries, which in turn divide into 164 sections. In war each section forms a battery. The average peace strength of a battery is eleven officers, 190 N.C.O.s and men, and four guns. Uniform, armament, equipment, transport, etc., as

in the field artillery, the brigade number being borne on the shoulder-straps of the blouse.

Reserve Ammunition Columns.

Of these there are eight, two being Caucasian, with strengths varying from one to four officers and thirty to 127 rank and file. On mobilization they expand into fifty reserve artillery parks, two of them being mountain parks. They are attached to reserve divisions. Their uniform, etc., correspond to those of similar units in the active army.

Imperial Militia Field Artillery.

Of these there are, in theory, 160 batteries. On the militia being called out, eighty batteries will be combined into forty regiments. Each battery is to have six officers, 193 N.C.O.s and men, 144 horses, eight guns, thirteen carriages. Uniform as in the field artillery, with militia cross on cap, and regimental number on shoulder-strap.

Ten battalions of Imperial Militia foot artillery will be formed in war, numbering in all about 12,000 officers and men.

Reserve Engineers.

In peace there are two sapper battalions, each of three companies. In war, each battalion expands into six companies, and also forms two depôt battalions. There are also three reserve railway battalions of four companies each, formed by the 5th Companies of the 2nd, 3rd, and 4th railway battalions. The peace strength of a reserve sapper battalion is 474 officers and men; the war strength, 1564 officers and men, 160 horses, and 64 carriages. Uniform, etc., the same as for corresponding active units, with distinguishing numbers and letters on shoulder-straps.

Imperial Militia Engineers.

On mobilization, five battalions will be formed. Strength of each, twenty-three officers, 978 N.C.O.s and men, thirty-six horses, and sixteen carriages. Uniform as in corresponding active units, with the Militia cross on the cap.

Higher Tactical Reserve Units.

The *Reserve Infantry Brigade* has a fighting strength of 7078 rifles.

The 1*st Category Reserve Division* comprises two reserve infantry brigades, six batteries, etc., or 393 officers, 18,757 N.C.O.s and men, 3912 horses, 48 guns, 713 carriages. *In war, twenty of these divisions and fifteen of the second category, together with* 490 *Cossack squadrons, and some other auxiliaries, would be the reserve for the army in the field.*

CHAPTER VI

THE MARCH

The quick step varies from 118 to 130 to the minute; the double from 170 to 180 to the minute.

When the enemy is at hand troops march as closed up as possible; at a distance from the enemy in looser order, to save the troops. Great order is observed on marches. In passing defiles, etc., the commanding officer should see his troops file past him. Infantry march in column of squads or fours according to the breadth of the road, cavalry in column of fours or sixes, artillery in column of route or sections. On the broad Russian roads depths of

columns may often be reduced by broadening the front. In open country artillery and baggage may move along the road, while infantry and cavalry march alongside.

Advanced and Rear Guards, etc.

The *Advance guard* is usually about one-third to a quarter of the whole marching column. If the ground is open cavalry and horse artillery predominate in advance guards, but infantry and field artillery if the ground is enclosed. Distances in advance vary from three miles or more for divisional advanced guards and those of the higher units, to 600 yards for the advanced guard of a battalion. The *rear guard* is made somewhat stronger than the advance guard. In other respects it follows the same rules.

The *Order of March* is laid down by the commander in a document which should state—the object of the march, the distribution of troops, measures for security, time of starting, times and places of halts, etc.

Camps, Bivouacs, Billets.

Russian troops are provided with tents; hence camp bivouacs are in favour. Infantry camps nearest the enemy. Latrines are one hundred paces from the bivouac. In bivouacs of infantry, cavalry, and artillery, the artillery is placed between or in rear of the other arms, but the gun parks are in front of the general line. Intervals for battalions and batteries are never less than forty paces. When *billets* are used the senior officer in each village commands, assigns alarm-signals and plans, and so forth; squads and sections are not broken up. Guards provided with pass words are placed at each entrance to the village.

Outposts.

Outposts are usually the charge of advanced guards, a special officer with special instructions being appointed. A post usually consists of four men, one acting as sentry, the remainder under cover in the rear. The distance of the furthest outposts from the main body would be from two to four miles according to the size of that body. The series of posts consists of *outposts*, *supports*, and *main guards*, the main guard furnishing the patrols to visit advanced posts. The outpost *sentries* are at from ten to fifty paces in front of the rest of the posts. A second man is placed halfway.

Infantry sentries and reserved men keep their knapsacks on, but the second man may sit down. The *cavalry* sentry remains mounted. The second man may dismount. The remainder of the cavalry outpost may take off their knapsacks, unbridle, feed, and water in turn.

No outpost men may sleep. Horses must not be unsaddled. The second man is the connecting link between the sentry and the commander of the outpost. The sentry reports to him anything he sees, and through him the news is taken to the commander. Persons approaching are stopped at fifty paces. The demand is, "Halt! Who goes there? What is the password?" The challenge is repeated three times before firing. Outposts are relieved every twenty-four hours, and are never on duty longer than forty-five hours. Outpost patrols, of any number of men up to twelve, ensure the outposts from surprise. Flying patrols scour the country.

CHAPTER VII

DRILL AND TACTICS

Infantry.

Paces.—The quick step varies from 118 to 130 to the minute; the double from 170 to 180 to the minute.

Manual exercise includes—order arms, slope arms, present arms.

Formations.—The *company* is formed in two ranks. It is divided into four sections of two or more squads, according to the number of files. It may be formed in line or column. The usual *battalion* formation is in section column, the first and second companies abreast in the first line, and the third and fourth abreast at five paces' distance in the rear. The *regiment* forms in reserve column, with the first and second battalions in the first line; the third and fourth in the second line, at forty paces' distance in the rear. The *brigade* and *division* also form in reserve order with the two regiments alongside one another with forty paces' interval, or in rear of one another at twenty paces' interval.

Extended order.—Squads and sections extend from flank or centre with no stated distance between the men. The section commander directs fire, and precedes the firing line. No firing is allowed on the move. Whistles are used to signal cease fire.

Infantry Attack.

A *company* attacking by itself does so with a firing line, and a reserve for the final attack. The charge is with closed ranks, cheering at fifty paces' distance. The firing

line pursues; the reserve rallies. A *battalion* attacks with a fighting line and a reserve, and with its fighting line companies usually extended entire. The reserve of a battalion, if possible, remains intact. It acts as the company reserve acts.

In regard to the general principles of Infantry attack, the advanced guard deploys at from 4800 yards (if the enemy has artillery) to 2400 yards' distance from the hostile troops. The main body advances in column until forced to deploy owing to the enemy's fire, or to support its own advance guard. Under fire leading companies advance in line with open files, or in fours. At 1400 to 1000 paces the firing line halts, and final orders are issued; the reserves close up, and the advance is continued at the quick. At 500 to 400 paces the assault is finally prepared by intense fire from the last selected position. The advance must always be *at the quick, must keep its direction, must be as uninterrupted as possible. The reserve must always be nearer the fighting line than the enemy is;* otherwise it must avoid fire as much as possible. If possible the frontal attack should be combined with a flank attack, preferably on one flank, so as to preserve concentration. In this attack the reserve may be used; but both frontal and flank attacks must be simultaneous.

In the above regulations no provision is made for a more rapid advance than the quick step, a tactical error in the opinion of some authorities, who very properly complain that the loss must be heavy under such advance on open ground like the Russian plains.

Infantry Defence.

Success depends on selection and entrenchment of position, together, of course, with continued and accurate fire.

Flanks must be secured. At the moment of the enemy's final assault the defensive force attacks also, its reserve, if possible, assaulting the flank of the attacking force.

As in the German army, so in the Russian, it is held that rifle fire, even in extended order, should beat off cavalry. In fact, given a surprise of infantry by cavalry, close order must, one would suppose, be worse for the infantry than open.

Artillery cannot defend itself against infantry; hence the duty of protecting artillery devolves upon the infantry nearest to it.

In operations by night the ground must be thoroughly known. Silence must be kept. The attacking force moves in close order. The attack of large bodies should be delivered just at dawn, as Lord Wolseley attacked at Tel-el-Kebir.

There are eleven bugle calls.

Supply of Ammunition.—The private carries 120 rounds. Regimental transport carries sixty-six rounds per man. The carts are, if possible, under cover behind the battalion reserve. Their position is marked by red flags by day, by lanterns at night, provided the flags and lanterns cannot be seen by the enemy. Ammunition must be economized, especially at long range. Commanders in the firing line should know approximately how many rounds have been expended.

General Principles of Infantry Fire.

The three main principles are :—

(*a*) *Strict fire discipline.*

(*b*) Selection of targets.

(*c*) Accurate ranging.

Eyesight is held to be the handiest way of determining range.

The Russian provisional regulations favour the elimination of company reserves when working with the battalion. The object is to bring at once into action the greatest possible number of rifles. "By the extension of entire companies the *battalion commander* has, for the time, two formed companies under his hand."

Cavalry Paces.

The *walk* is at three and one-third to four miles an hour; the *trot* at eight miles an hour; the gallop at ten and two-thirds miles an hour, or, under fire, at sixteen miles. The charge is at utmost speed.

Cavalry Formations.

The squadron is the tactical unit. It is divided into two half-squadrons and four sections, and may be formed in line, or in column of sections at wheeling distance, etc. The regiment usually consists of six squadrons; but the Guards, Cuirassiers, and certain Cossack regiments have four squadrons only; it is divided into two divisions, and can be formed in line, double column sections, etc. The normal brigade consists of two regiments. The normal division of two brigades. The corps of two or more divisions.

The Attack.

The attack is delivered in line. The attack by brigade or division usually in three lines. The division or corps may attack in four lines. The attack is in close or open order, by stages, or from the halt. Flank attacks are the most favourable. Surprise should be aimed at. *Attacks upon cavalry* are in close order. *Infantry is attacked* in close or open order; if in open order this applies to the first line only. *Massed artillery* should be attacked if possible in

flank. In all attacks the first line should be stronger than that of the enemy. The reserve should not be more than 400 paces from the first line.

Horse Artillery attack precedes that of cavalry, hence it must manœuvre at the field gallop. The cavalry commander has a general direction of attached artillery.

In cavalry dismounted action numbers one and three dismount, number two holds their horses, bayonets are fixed, horses are if possible put under cover, but must be near at hand. The combat is governed by infantry regulations, but is less methodical. Rapidity and surprise are aimed at. The horses must always be protected.

Cossack Cavalry.

Formations and drill are, generally speaking, the same as those of regular cavalry; but Cossacks have an attack formation called the "Lava." Half the squadron is extended in single file, a small detachment in close order follows fifty paces in the rear, under a special leader called a *mayak*, the remainder forms a reserve 300 paces behind. A Cossack regiment forms two "lavas," the first of three squadrons, the second of two, the remaining squadron, in close order, forms the reserve. The use of the "lava" depends on circumstances where Cossacks are acting with regular cavalry. Cossacks usually trot to within 150 paces of the enemy, and then charge.

Cavalry divisions may reconnoitre twenty-six miles in front of the army, when the enemy is not near.

Field Artillery.

Formations.—The battery of eight guns is divided into two half batteries, and may be in line, at twenty-seven,

twelve, or six paces interval. There are other formations, and the drill consists in executing them. The tactical unit is the brigade division of three or two batteries.

Attack.

The object first attacked is hostile artillery, and close bodies of the enemy. Fire is effective at 2600 yards. Rapid fire should be sparingly employed. The fighting line has attached to it four ammunition wagons, the limbers are not to be more than 230 yards in rear of the guns, the divisional wagons not more than 700 yards distant, the flying parks two to three and one-third miles away. Reconnaissance and accurate ranging are held to be the matters of most importance both in attack and defence.

CHAPTER VIII

FORTRESSES

Classified List of Fortresses.

First class, 4 :—

Warsaw, Novo-Georgievsk, Brent-Litovsk (Warsaw district); Kovno (Vilna district).[1]

Second class, 6 :—

Kronstadt, Sveaborg (St. Petersburg district); Ivangorod (Warsaw district); Kerch (Odessa district); Libau (Vilna district); Vladivostok (Pri-Amur district).

[1] It is said that, within about five years, Port Arthur will be transformed into a fortress of the first rank, and an impregnable port.

Third class, 7 :—

Viborg (St. Petersburg district); Ossovets, Ust-Dvinsk (Vilna district); Sevastopol, Ochakov (Odessa district); Kars, Batoum (Caucasus district).

Unclassed, 46 :—

Zegrj (Warsaw district); St. Petersburg (St. Petersburg district); Kiev, Dubno (Kiev district); Dvinsk (Vilna district); Alexandropol, Evdomikov, Shatoi, Yevgenievsk, Karadagh, Khunzakh, Khodjal Makhi, Preobrajensk, Veden, Georgievsk, Gunib, Akhti, Zakatali (Caucasus district); Kushk Post, Alexandrovsk, Krasnovodsk, Askhabad, Merv, Chitishliar, Tashkend, Ura Tiube, Namangan, Kokand, Aulieata, Khodjend, Samarkand, Chinaz, Klinchevoi, Chust, Makhram, Petro Alexandrovsk, Ardijan, Margelan, Chimkend, Perovsk, Djarkend, Bakhti, Karakol, Narin, Zaisan (Turkestan district); Nikolaievsk (Pri-Amur district).—*Captain Macbean's list.* Many of these are merely fortified posts.

Some account of the fortress infantry has been given under that title in the chapter on the Active Army, and of the fortress artillery under the titles foot artillery and siege parks, in the same chapter. The guns used are very various, but include the following :—

4·2-inch	steel	guns of	2,889 lbs. weight
6-inch	„	„	4,333·5 „
6-inch	„	„	7,022·2 „
8-inch	screw	„	12,493·2 „
etc.	etc.		

The 8-inch screw gun is now being replaced by a non-screw 8-inch gun of about sixty-four cwts. All the above are also siege park guns. Besides these there are :—

14-inch steel guns, 1877 pattern
11 „ „ „ „ „
11 „ „ „ 1886 „
10 „ „ „ 1895 „
10-barrel Gatling machine gun
1-barrel Maxim automatic machine gun,
etc. etc.

The positions of the main fortresses are significant. The fortress outpost of South-West Russia is Warsaw, in Poland, on the left bank of the Vistula, and two out of the other three first-class fortresses are also (see above) in the Warsaw district; for the heart of the Russian Empire can best be pierced through Poland. Warsaw is the apex of a triangle, at the opposite ends of the base of which are Berlin and Vienna. The other first-class fortress—Kovno on the Niemen—guards the passage south-east of the Baltic against the advance of Prussia.

The Gulf of Finland, and hence the capital of the Empire, is defended on the north by Sveaborg, on the south by minor fortifications, whilst at its head, and protecting the capital of the Empire towards the sea, lies Kronstadt. St. Petersburg itself is not a fortress, its position is almost a sufficient protection, lying as it does south of Lake Ladoga, with Kronstadt guarding it towards the sea, and the first-class fortresses in the Warsaw district towards the south.

It is worthy of notice that whilst Vladivostok is ranked as a second-class fortress, Sevastopol has been compelled to take a back place, though it has lately been supplied with new fortifications. A second invasion of the Crimea by England seems not to be contemplated, yet it is difficult to see where else England could so well attack Russia. Perhaps it is intended that that

part of the Empire should eventually be defended by fleets.

The fortified posts in the Caucasus district are many of them of interest, marking and emphasizing as they do Russia's continuous onward march, but few of them are of much individual importance.

CHAPTER IX

GENERAL

A new Army Corps.—Under date April 11, 1899, the Vienna military paper *Reichswehr* learns that by an imperial Ukase dated April 3, the formation of a second Caucasian army corps is ordered, giving Russia twenty-five army corps as against Germany's twenty-three. Such news, if true, will not assist the Peace Conference.

Training of Infantry and Cavalry in Artillery Exercises.

For several years past officers and men of the Guard infantry and cavalry have been trained in such exercises. In 1897 the training was extended to non-commissioned officers and men of the 24th Infantry Division, officers commanding sections and cavalry non-commissioned officers acting as No. 1 of a gun. Three foot batteries and a horse artillery battery of war strength thus composed were inspected by the Grand Duke Vladimir.

Uniform—Distinctive Marks.

Rank is denoted by stars and lace on the shoulder-strap and collar of the tunic, and on the shoulder-strap of the greatcoat.

Ensigns of the reserve—one star.
Sub-lieutenants—two stars.
Lieutenants—three stars.
Staff-captain—four stars.
Captain—no stars.
Lieutenant-colonel—three stars.
Colonel—no stars.
Major-general—two stars.
Lieutenant-general—three stars.
General—no stars.
Field-marshal—crossed batons.

Spirit and Discipline.

The visits of the President of the French Republic, and of the Emperor and Empress of Germany, accompanied as they were by reviews on a large scale, aroused considerable enthusiasm in the Russian army, an enthusiasm increased by the Tsar's presence last year at the grand manœuvres in the Warsaw circle. In regard to spirit and discipline little information is available. There is some discontent, and even insubordination among the lower ranks of officers, consequent upon the slowness of promotion amongst lieutenants, and the number of efficient young artillery officers, and to a less extent engineer officers is insufficient. So far at least as the artillery officers are concerned; this may be only a temporary difficulty, consequent upon the late considerable increase in the artillery.

Budget.

The depreciation of Russian currency is such that it is useless to attempt the translation of Russian money terms into English money terms, but the total debt may be £700,000,000.

The latest available Russian *State Budget* shows an excess of ordinary expenditure over ordinary receipts of 14,000,000 roubles.

The *War Budget* for 1898 figures at 288,808,664 roubles against 284,379,994 roubles in 1897. The 1898 Budget is therefore about four and a half millions of roubles the higher. The considerable increase in the Russian peace army eats up this four and a half millions in victuals alone. Other increased items of the expenditure are—

	Roubles.
Forage	1,000,000
Pay	3,000,000
Lodging	1,500,000
Transit	1,000,000
	6,500,000

which are made up by reductions in other expenses, such reductions as—

500,000 roubles for the exercise of the Reserve.

1,000,000 roubles for uniform and equipment.

1,000,000 roubles for the maintenance of the Reserve.

Besides these reductions armament for 1898 is only nineteen million roubles, as against twenty-one and a half millions for 1897. This reduction is due probably to the fact that there was no such increase in any arm in 1898 as the great increase of artillery in 1897.

Combined with the increased expenditure on the Active Army, the reduction in expenditure on the Reserves is of rather curious interest. Russia preaches peace, but she relies ever more upon the perfect training of still larger sections of her population for war.

ROADS AND RAILWAYS IN RUSSIA AND RUSSIAN ASIA.[1]

Roads.—In the Russian Empire there are, up to the last official return in 1896, only 14,582 English miles of made roads, and these are all in European Russia. In twenty-two governments there are no made roads at all, and in the Caucasus and Asia made roads scarcely exist.

Railways.—In the Russian Empire there are about 34,000 miles of railways open, and 6000 miles under construction. *All* Russian railways are strategic.

Asian Railways.—Railways were commenced in Asia under Alexander III in 1880. At that period England had 9279 miles of railway in India.

The *Asiatic Railways* are:—

1. The *Trans-Caucasian* Railway from Batoum, by Tiflis, to Baku on the Caspian.

2. The continuation of this line on the other side of the Caspian, known as the *Trans-Caspian* Railway, which runs from Krasnovodsk *viâ* Askabad, Merv, and Bokhara to Samarcand. This line is being continued to Turkestan and Orenburg in the north, and to Khokand and Kuldja towards the east.

3. The *Trans-Siberian*, beginning at Ekaterinburg on the eastern side of the Urals, and going on *viâ* Omsk, Tomsk, Nijni-Udinsk, and Irkutsk, right across Siberia to Vladivostok, and eventually to Port Arthur.

4. Smaller lines, of less strategic importance, between Ekaterinburg and Tiumen in Western Siberia.

Rolling Stock, Military Transport, Gage.—On these railways Russia possesses 8118 passenger carriages and 160,000 goods wagons, and could entrain 290,000 military passen-

[1] I am much indebted for this section to Mr. Alexis Krausse, author of *Russia in Asia*.

gers at a time. The gage is five-foot, and, especially in Asia, much of the system is single line.

Objectives of Russian Railways.—(1) Turkey. (2) China or Japan. (3) Persia, India, or Southern China.

1. An army could be mobilized against Constantinople by means of the ramifications of the European lines terminating at Odessa, Nikolaiev, Sèvastopol, and Anapa. In addition, men could be drawn from the Caucasus and from Transcaspia by means of the Trans-Caucasian railway to Batoum.

2. Against *China* proper Russia is at present unprepared, until the Trans-Siberian Railway is completed to Vladivostok, and the Trans-Manchurian Railway to Kirin, Port Arthur, and Newchang. The idea is to connect this line with the proposed northern line from Pekin. It is suggested that, while Pekin is thus attacked from the north-east, a flying column could be sent from the north-western frontier town of Kiakhlita by the caravan route to Kalgan and Pekin.

3. Operations against *India* would be carried on either through Affghanistan in the north-west, and Beloochistan in the west, or through the Pamirs on the north-east. In either case, the lines of advance would be from the great military centres of Turkestan and Transcaspia.

There are two military routes trending to the Indian frontier, which have been employed in the numerous Russian campaigns in Central Asia. That coming from the north is merely a track protected by fortified posts; that coming from the west is now covered by the Trans-Caspian Railway.

The first of these routes is the old military road from Orenburg by Orsk and Fort Karabutakshoie to Fort Kazala on the Jaxartes, near the Aral Sea, thence along

the left bank of the river to Fort Perovski (formerly Ali Mesjid) and Fort Chulak to Turkestan and Tashkend, the seat of military government in Turkestan. From Tashkend, the railway (to be opened this year) can be taken *viâ* Samarcand, Bokhara, and Merv to the Affghan frontier. The second line of approach is from Krasnovodsk (whither troops can be conveyed by the Caspian fleet) *viâ* the railway, direct to Merv, passing through Askabad, the military capital of Transcaspia.

Both the above routes bear on Affghanistan. An attack through Persia and Beloochistan would not at present be contemplated.

The attack through the *Pamirs* would be made through Ferghana from the Tashkend base.

The base of attack on China in Central Asia would also be Tashkend.

Persia could be occupied at any moment, for, with her large fleet on the Caspian, where Persia is by treaty prevented from floating warships, Russia dominates Persia. It is probable that, but for England, this occupation would long ago have taken place. For 300 miles the frontiers of Russia and Persia are conterminous, and Russia's advance in that direction is, therefore, as certain as anything can be. She can't help it. Meanwhile, a military road has been constructed from Askabad over the Kopel Dagh to the Persian frontier.

The Army in Asia.

Information in regard to the condition of Russian armies in Asia is vague and unsatisfactory. Our whole knowledge of the Russian-Asian problem is slight; but it is probable that very little advance has at present been made, except in extent of country passed through. Compared with the

sum total of the Russian armies, the numbers employed in Asia are far less than one might have supposed would be the case; and the Tsar's longing for time and peace to consolidate his vast dominions is very natural. It would be of extreme interest could we form some fairly accurate opinion as to the present and future value of the Asian part of these dominions; but our knowledge of even Russia in Europe is scanty and ill-informed. Some study of the Asian question, both in regard to military and political considerations, leads me to suppose that the danger to us as an Empire, and as an Eastern Power, from the loosely-constructed fabric of the Russian Empire, is less at present than is often imagined. The real risk is this—that neither England nor Russia can stop, and that if they go on they must some day meet.

THE SERVIAN ARMY

Population.—About 2,200,000, considerably more than half being males, and ninety per cent. being Servians. The population is on the increase.

Organization and liability to service.—The army is divided into Active Army, and Militia, first and second bans. Neither of the militia bans have cadres in peace time, and only about half of either ban would have any training. *Terms of service* are nominally from the twentieth to the fiftieth year for all sound males, namely, two years in the Active Army, eight years in its reserve, ten years in the militia first ban, ten years in the militia second ban.

There are five divisional districts, maintaining a *peace strength* of from 15,000 to 20,000 men, including 14,000 infantry, 1200 cavalry, 166 guns, and 3700 horses. The nominal *War strength* is—

Regular Army . . .	130,000	officers and men.
Militia, first ban . . .	124,000	,, ,,
Militia, second ban . .	62,000	,, ,,
	316,000	

or somewhat more; but concrete examples are the best illustrations of war strength. "In 1885 Servia took eighteen days to mobilize 55,000 men of the regular army, and twenty-four days more to put an additional twenty-one battalions (fifteen of which were militia) and

two squadrons in the field." Except for the issue of new regulations, there has been little improvement in this direction since that time. Yet, after all, is this so very bad when we consider her peace strength? Every commune is charged with providing transport and draught animals, but the law is shirked, and probably only the worst horses and carts would be forthcoming.

Uniform.—*Infantry*, dark blue blouse tunic. *Cavalry*, light blue blouse tunic, crimson pantaloons. *Artillery*, infantry tunic with black collar. *Engineers*, infantry tunic with cerise collar. *Infantry Officers* wear the Russian flat cap.

Armament.—Rifles of several patterns, with sword-bayonet for *Infantry*. *Cavalry*, sword and Mauser carbine. *Guns* on the 8 cm. De Bauge system.

Budget.—Revenue, £2,546,000. Expenditure, £2,546,000. Debt, £14,850,000. Army expenditure, £564,612.

ARMIES OF THE SOUTH AFRICAN REPUBLICS

THE TRANSVAAL

White population	295,000
Kaffirs	620,000

Liability to service, from eighteen to fifty years or more.

War strength.—26,500 Burghers may be called upon to fight; 14,200 of these are between eighteen and thirty-four years of age.

The *State Artillery* is the nucleus of the armed forces. It has been reorganized since 1895. It must always be ready to march. The corps comprises a colonel, 109 other officers and N.C.O.s, 226 artillerymen, twenty-eight apprentice telegraphists, etc. The large number of officers is for training purposes. This is the force which overawes, or at least constantly confronts, Johannesburg. The number of guns is only approximately known. It is not less than the following:—Six light and six heavy Krupp guns, four light and two heavy quick-firing guns, one rifled muzzle-loading gun, one machine gun.

Volunteers.—Several corps have been constituted. The special object is to keep up the shooting. In shooting, the Burghers are reported to have fallen off since the fatal days of Majuba Hill, in consequence of the gradual disappearance of big game; but, in marksmanship they may still be equal to regular troops. In Johannesburg a corps has been formed consisting of 600 infantry and 200

cavalry. Krugersdorp has a corps of cavalry 150 strong. Middelburg, Carolina, Ermelo, and several other places have corps.

THE ORANGE FREE STATE

White population	77,000
Natives	130,000

Numbers liable to service, 20,000 men.

The permanent troops are eighty field artillery-men, stationed in the fort at Bloemfontein. The reserve for this corps consists of 400 men.

There are fourteen Krupp 7·5-cm. guns; five Armstrong 9-pounders; two Whitworth 6-pounders; one Whitworth 3-pounder mountain gun; one 3-cm. Krupp gun, three Maxims.

General.

At the time of writing, it seems possible that the political confusion in the Transvaal may need clearing up by war. Thoughtful persons will very generally sympathize with President Kruger, yet hold his views to be impracticable. It might, or might not, have been better for the Boers had Englishmen not pursued them to their last resting-place across the Vaal, but they are there, and must be counted with.

British forces in South Africa, June 20th.—In Natal: the 5th (Royal Irish) Lancers, and 18th Hussars; the 13th, 67th, and 69th batteries of Field Artillery, also the 10th Mountain battery; the 1st King's Royal Rifles, the 1st Leicestershire, the 2nd Royal Dublin Fusiliers.

In Cape Colony: the 1st King's (Liverpool) Regiment, the 2nd Royal Berkshire, and part of the 2nd King's Own (Yorkshire Light Infantry).

THE SPANISH ARMY

Population 17,650,000

It is not very easy to write about the Spanish army, for, owing to recent circumstances, it will be recognized at once that a good deal of what is said is merely words; still the usual figures must be given.

Liability to service.—With some exceptions all able-bodied men are liable to service for twelve years from the 1st of February of the year in which they complete twenty years of age. Payment of from £60 to £80 excuses service in time of peace. As a matter of fact, recruits are taken during the course of their nineteenth year. The annual conscription amounts to 180,000, but nearly 70,000 get off for one reason and another. Of the remaining 110,000—ten thousand are assigned to the navy. The 100,000 recruits who are left are divided into two portions by drawing lots. A variable number, averaging about 35,000, is assigned to the home *Active Army*.

The recruits joining the active army serve nominally three years with the colours, and three years in the *first reserve*, then six years in the *second reserve*. Few men, however, of the infantry at least, pass more than two years and three months in the active army.

The second portion of the annual 100,000 recruits,

namely, about 65,000 men, passes at once for six years into the *reserve of recruits*, and then for six years into the *second reserve*.

There are thus three sorts of reserves: the *first reserve* or *reserve* of the active army, destined to fill up the ranks of the active army for war, in case of mobilization; the *reserve of recruits*, which would supply the losses of war; and the *second reserve*, which would form special corps.

PEACE STRENGTH OF THE ARMY.

Infantry	239,000
Cavalry	24,000
Artillery	22,000
Engineers	11,000
Civil Guard	25,000
Carabineros	15,000
Other items	13,000
	349,000

Of this number, the *Active Army*, without its reserves, may be put at 100,000; the remainder consists of first and second reserves, etc.

Total Peace Army, 349,000.

WAR STRENGTH.

The number of men actually under arms at home and abroad during the late war was about 360,000. The number of cavalry horses was 25,000. The number of guns provided was 952. Estimating the annual number of recruits at 100,000, and the number of years service at twelve, we get twelve classes of men more or less trained, and, after various deductions for deaths, etc., place the total number of men who might be called upon to serve during a protracted home war at 1,000,000.

It is however very doubtful whether the above numbers would be forthcoming, and on the whole it seems best not to reckon on more than 750,000 men.

Total War strength, 750,000.

War Organization of the Kingdom and Army.

The eight army corps are thus distributed:—

Army Corps	Divisions
Madrid	3 Infantry. 1 Cavalry.
Seville	2 Infantry.
Valencia	2 „
Barcelona	2 „
Saragossa	1 „
Burgos	3 „
Valladolid	1 „
Corunna	1 „
	16 Divisions of Infantry.
	1 „ Cavalry. (but see below)

The *Infantry* is divided into twenty-six brigades of fifty-six regiments, each of two battalions. *Rifles* have five brigades of twenty battalions.

Except in the case of the Madrid army corps, the highest *Cavalry* unit is the brigade. Seville, Barcelona, Saragossa and Valencia have each a brigade. Burgos has two, Valladolid has one and a half, Corunna one regiment. Total number of cavalry horses in time of peace, 16,700.

Of *Artillery* there are seventeen regiments of sixty-eight field batteries, and nine battalions of fortress artillery.

Total number of field guns, 816.

There are four regiments of *Sapper-Miners*.

Recruiting.—The Peninsula is divided into sixty-one recruiting zones, as equally divided as is practicable in regard to numbers of populations and correspondence to political divisions. The first fifty-six of these zones provide fifty-six infantry regiments, and twenty horse battalions. Five zones supplement the resources of the others, but the zone of Seville is responsible only for a regiment of cavalry. In each zone there is a reserve regiment, existing only in cadre in time of peace.

STRENGTH OF TACTICAL UNITS.

In Peace.

	Officers	Men
Infantry, battalion	20	388
Rifles, battalion	23	964
Cavalry, squadron	5	113
Horse, Mountain, and Field Artillery	4	82 to 116
Fortress Artillery, company	4	102
Sapper-Miners, battalion	19	400

In War.

	Officers	Men
Infantry, battalion	24	1000
Rifles, battalion	23	1001
Cavalry, squadron	5	150
Sapper-Miners, battalion	24	1002
Artillery, battery, no details.		

The usual number of *guns* per field or mountain battery is six. The variation in the number of men per battery depends generally upon whether the guns are 8-cm. or 9-cm. There are two horse artillery batteries attached to the Madrid army corps. These have the highest number of men, 116.

Uniform.

Line Infantry.—Dark blue tunic, yellow buttons, red collar. Number of regiment on collar. Red trousers.

Cavalry.—Light blue pelisse. Number of regiment on collar. Red trousers. Hussars have sky-blue trousers.

Artillery.—Dark blue tunic, white buttons, Dark blue trousers, red band.

Engineers.—Uniform similar to artillery, but the trousers have double bands of red.

Armament.

Infantry.—Mauser 7-mm. repeating rifle, and bayonet.

Cavalry.—7-mm. carbine and sword. There are eight Lancer regiments.

Field Artillery.—8-cm. and 9-cm. guns.

Defence.

In the Basque provinces, protecting the north-western passage of the Pyrenees, we find the entrenched camp of *Oyarzun*, not far from St. Sebastian, and further along the coast *Santona*, with a brigadier-general in command. The passes between the coast and the Ebro are covered by the fortifications of *Bilbao*, *Vittoria*, etc.

In the country to the north of the Ebro there are several fortified positions, of which perhaps the most important is *Jaca* (brigadier) in the Pyrenees, near the source of the Aragon (a left bank tributary of the Ebro).

In *Catalonia*, between the Segre and the Mediterranean, there are a numberof fortified positions, including *Gerona* and *Figueras* (brigadier), immediately below the north-eastern point of the Pyrenees.

On the Portuguese frontier we have the famous names of *Ciudad-Rodrigo* (brigadier), *Badajos*, etc.

The principal maritime defences should perhaps be mentioned. There are on the Atlantic coast and north of Portugal, *Santander*, *Ferrol*, *Vigo* (brigadier); *Cadiz* in the south; *Tarifa*, and *Algesiras* with the entrenched camp of *San Roque* guarding against our position at Gibraltar; and in the Balearic isles *Palma* and *Mahon*, both brigadier-generals' commands.

The Spanish army corps are constituted with a view to protection of exposed points. Thus, the fourth (Barcelona) corps has two divisions; the sixth (Burgos) corps has three—these corps guarding the eastern and western passages of the Pyrenees; while the fifth corps, standing in a less exposed position at the apex of the triangle along the base of which runs the line connecting Barcelona and Burgos, with its one (formed) division supplies a support and rallying position behind the Ebro to the other two. On mobilization another division might be supplied to the fifth corps from reserves. The other corps are, principally, near the frontiers, Madrid with its three divisions acting as a central support and reserve.

It is probable that in war the infantry reserve cadres would form new units; that each army corps would have six field batteries, and one regiment of cavalry per *Division*, and one battalion of Sapper-Miners per *corps;* and that each division would have three divisional field batteries, and one divisional Sapper-Miner battalion. The pontoon equipages, telegraphists, and railway troops would be attached to the head-quarters of the army corps.

General.

Budget.—Revenue, £43,590,000. Expenditure, £45,000,000. Debt, including £76,000,000 of Cuban debt, £369,678,000.

The *War Budget* is complicated, as is the *State Budget* to some extent, by the long-protracted struggle in Cuba, and especially by the conflict with the United States. The Army expenses for 1898 may be estimated at about £8,000,000, exclusive of a monthly average of £1,600,000 directly spent on the Cuban war. To meet the expenses of the war new currency notes of the value of £10,000,000 were issued, and other measures were taken.

An interesting item of expenditure in the *Budget* for 1897-8 is £1,000,000 for fortress works, including works on the North African coast, the camp near Gibraltar, Cadiz, etc.

The War in Cuba.

The war in Cuba gave an apt illustration of the inherent weakness of the Spanish navy and army. In regard to the former it was held by English naval officers before the contest between Spain and the United States began, that Spanish cruisers could have little chance against American warships should they be so foolish as to engage them; but, apart from this, there were grave doubts as to the shooting of the Spanish navy. Naval battles, it was pointed out, will be won in the future as they have been won in the past, by shooting. To fire big guns is expensive. Spain is poor, hence it was unlikely that she should have practised much with big guns. The results justified these doubts, though it is probable that even those who should have been well informed were

surprised at the good average results of American shooting. From the naval point of view few new lessons were learnt, since the States never had anything worthy of much mention to fight against.

At the outbreak of the war between the two powers it was pointed out that since early in 1895 Spain had kept an army, amounting at times to as many as 200,000 men, in Cuba, engaged in the work of putting down a rebellion which, so far as its fighting force was concerned, could seldom muster more than 40,000 men. Spain had been unsuccessful in her efforts against her own rebels, and it was improbable that she would succeed against the wealth and power of the States. Yet here again few were prepared for the almost incredible incapacity and unpreparedness of the Spanish political and military authorities, though students of Wellington's campaigns, since which campaigns Spanish character has not improved in any marked way, might well look upon the Spanish official as a gallant but impracticable person.

It is believed that had Admiral Cervera allowed the guns from his warships to remain on shore in Santiago, where they had been landed, the United States army would have suffered heavy loss in the attempt to storm the town, or had the Americans been compelled to wait in their ill-chosen camp they would have suffered even more severely from yellow fever. But those whom the Gods wish to destroy they first drive mad, and by his childish dash for the open, whatever were his orders, Admiral Cervera not only lost his good ships and gallant men without any hope of success, but also, for no purpose, withdrew the most important of the land defences of Santiago. Correspondents tell us that, with a few exceptions, the guns belonging to the fortifications themselves

were obsolete, many of them indeed being cannon of the last century.

The contest is now over. The lesson has been a sharp one. No gallantry could have exceeded that of the Spanish soldiers and sailors on several occasions. No cause could have been more hopeless. Those who wish well to Spain would desire that she should learn that in these days gallantry without common-sense gives cause for sadness, not for admiration, and that she should now resolve in matters military, as well as political, to insist on truth and efficiency rather than on mere animal courage, on numbers, on figures and on figure-heads.

THE SWISS ARMY

Population 2,987,000

Liability to service is between the ages of seventeen and fifty. Those incapable of serving, or exempted, pay a tax of 6 francs per man, and 1·50 fr. per 1000 francs of net property or of net income. Actual service is usually between the ages of twenty and thirty-two. The first year the training is from forty-five days for infantry to eighty days for cavalry in the School of Recruits. Recruits then join the *Élite* or *Active Army;* in which cavalry remain for eleven years, other arms for twelve years. Cavalry are called out every year for ten days, infantry every second year for sixteen days, field artillery every second year for eighteen days. On leaving the Élite, men pass into the *Landwehr* until the end of the twenty-fifth year of service, while the *Landsturm* comprises all males fit for service between the ages of seventeen and fifty, who are not in the Élite or Landwehr.

Training for Landwehr infantry is for five days every fourth year. The total infantry training in Élite and Landwehr is 125 days and ten days respectively, but the Swiss are still famed as marksmen, and annual target-practice is required.

Organization.—The Field Army, excepting Landwehr companies posted in particular spots, is composed of the

yearly classes of the Élite between the ages of twenty and thirty-two. There are four army corps, each comprising eight infantry regiments, also comprising two cavalry regiments, four batteries, one corps park, two half-battalions of engineers, ten ambulances, etc.

The War Garrison Troops are as follows :—

Fortress Troops of the St. Gothard.

Two fortress artillery divisions, each of from two to three sections, each with four machine guns. One fortress infantry company.

Fortress Troops of St. Maurice.

One fortress artillery division with staff, two gunner companies, one observation company. One machine gun company, of three sections, each with four machine guns. One fortress infantry company. The garrison troops are partly *Auszug* (Élite), partly *Landwehr*. To guard against surprise before mobilization is completed, there are in the garrison about 100 men on permanent pay. Besides the Auszug and Landwehr, men of the valleys round hurry to the St. Gothard and to St. Maurice on the outbreak of war.

War Strength.

Auszug :—

Infantry	92,063
Cavalry	3,608
Artillery and train	18,152
Engineers	5,028
Medical and veterinary services	4,358
Supply services	1,366
Other details	538
Total	125,113

Auszug	125,113
Landwehr	70,791
Armed Landsturm	53,471
Total fighting strength .	249,375

The *Landsturm* is, properly speaking, a defensive force, and the remainder of it, perhaps 210,000 men, is called the auxiliary troops, or unarmed landsturm.

Military Districts.—There are four, corresponding to the four army corps.

Uniform and Distinctive Marks.—*Infantry*, dark blue or dark green tunic, grey trousers. *Cavalry*, dark green tunic, grey trousers. *Field Artillery*, dark blue tunic, grey trousers. Commanders of corps wear round the waist a silver and red sash. Rank of officers is shown by gold lace bands on the shako, and stars on shoulder-straps or epaulettes—three for colonels and captains, two for lieutenant-colonels and first lieutenants, one for majors and lieutenants.

Armament.

Infantry of Élite and Landwehr.—Männlicher magazine rifle 1889 (·295-inch), bayonet. *Cavalry.*—Männlicher carbine 1894 (·295-inch), sword. *Field Artillery.*—8·4-cm. (3·31-in.) steel Krupp gun, weight 8·37 cwt. *Mountain Batteries.*—7·5-cm. (2·95-in.) gun, weight 2·07 cwt.

Budget.—State revenue £3,398,000. State expenditure, £3,356,000. Total debt of Cantons, £3,234,000.

Besides the above revenue and expenditure the Cantons have their own budgets.

WAR BUDGET, 1898.

Estimated expenditure of the Confederation	£1,018,000
Estimated expenditure of the Cantons . .	£60,000
Total	£1,078,000

This is about £90,000 more than in 1897.

GENERAL.

The Swiss army is a complex force. The *Cantons* recruit the infantry, and by far the largest part of the cavalry and artillery; the Confederation recruits certain special units, including the engineers and medical service.

THE TURKISH ARMY

Population of Turkish Empire, including 5,000,000 Christians, estimated at 23,180,000.

For old association's sake; because they are gallant soldiers; because the Ruler of the Turkish Empire is in a sense the head of that Mohammedan Church which embraces so many of our fellow subjects; and yet again because we have important interests in parts of the Turkish Empire, there is always a good deal of interest taken by English people in the offensive and defensive forces of Turkey: but it will be necessary to condense the information into a short space, and, as is usual in the case of matters relating to the Eastern powers, facts may not always correspond with figures.

Liability to service.—All Mussulmans are liable to service. Christians and certain sects are exempt on paying a tax. Nomad Arabs and Kurds are liable, but the Arabs escape service, and so do many of the Kurds. Hence the conscription falls heavily on the Turks. Liability to service commences at twenty, and lasts twenty years—namely, four years with the Colours, two years in the Army Reserve, four years in the Landwehr (1st ban), four years in the Landwehr (2nd ban), six years in the Landsturm.

About 140,000 Moslems become liable to service every

year, and about 50,000 pass annually into the Nizam (Army and its Reserves).

Some Kurdish cavalry militia has been formed.

Strength of the Army.—The total war strength of the Turkish army is a very doubtful quantity. It appears, however, that on mobilization Turkey could within three to four months put 400,000 men into the field, at any rate for defensive purposes, and it is possible that in the course of a protracted war, 400,000 more might be added to them.

Total Fighting Power of Turkey, 800,000 *men.*—In the war with Greece, Turkey did not put forth her full strength. The estimated total number of battalions, squadrons, batteries, etc., in the Turkish army is as follows :—

Line Infantry, 318 battalions; Line Cavalry, 197 squadrons; Line Artillery, 231 batteries; Landwehr, 352 battalions; Landsturm, 352 battalions.

Of these troops Turkey put into the field in the late war :—

Line Infantry, 40 battalions—about 12 per cent.; Line Cavalry, 35 squadrons—about 18 per cent.; Line Artillery, 44 batteries—about 19 per cent.; Landwehr, 208 battalions —about 59 per cent.; Landsturm, 28 battalions—about 7 per cent.

Turkey therefore put about a quarter of her total fighting power into the field against Greece.

Military Districts of the Empire.

Though organized on the territorial system, parts of the army are temporarily or permanently quartered outside the districts (ordu) in which they are recruited.

These districts are seven, comprising between them the

whole Turkish Empire, and there are besides divisions in two other outlying parts of the dominion. Through the districts the troops are distributed as follows:—

	Head-quarters	Infantry Battalions	Cavalry Squadrons	Field Artillery Batteries	Landwehr Battalions	Militia Cavalry Squadrons
1st Ordu	Constantinople	31	35	24	64	
2nd ,,	Adrianople	34	30	30	64	
3rd ,,	Salonikt	68	30	39	64	239
4th ,,	Erzerum	51	30	39	64	
5th ,,	Damascus	34	30	43	64	
6th ,,	Bagdad	34	30	17	32	
7th ,,	Yemen	32	—	7	—	
Divisions	Hedjaz	17	2	2	—	
	Tripoli	17	10	6	—	
	Total	318	197	216	352	239

There are besides 19 companies of engineers; 17 companies of fortress engineers; 4 Telegraph companies; 103 fortress artillery companies; 15 squadrons of Train; 63 companies of artificers, and 15 additional fortress batteries. The head-quarters of the engineers proper are chiefly at Constantinople, Adrianople, Salonika, and Erzerum. The capital also takes 24 companies of the fortress artillery.

In regard to the battalions, squadrons, etc., with Damascus for their head-quarters, the statement should be more correctly—Damascus with Crete. The rotten limb Crete has dropped off the dying body of the Sick Man, and this may affect the army stationed in the Damascus district.

A glance at the map, observing the head-quarters of the various army corps, will show the wide extent of the still existing Turkish Empire. These districts and army corps reach from Salonika to the Tigris and the Persian Gulf, to Jerusalem and the Arabian shores of the Red Sea, and, skipping Egypt, to the south-eastern shores of the Mediterranean.

THE ACTIVE ARMY.

Infantry.—The battalion consists of four companies. Each company has four officers, fourteen non-commissioned officers, 209 privates. On a war footing there are besides twelve pack horses, a battalion staff of eight officers, and six non-commissioned officers with three horses. The total war establishment of a battalion is—twenty-four officers, sixty-two non-commissioned officers, 836 privates; total, 922 of all ranks, with fifty-one horses. A regiment of four battalions comprises about 3700 of all ranks with 200 horses. The Mauser magazine rifle with bayonet is the infantry arm. In the fight privates carry a very large number of rounds, sometimes as many as 250 per man.

Cavalry.—The war establishment of the squadron is 159 of all ranks. There are five squadrons in a regiment, the 5th squadron forming the depôt. The war establishment of the regiment is thirty-nine officers, 647 other ranks, or, adding the depôt squadron, 854 of all ranks with 880 horses. The armament is a carbine, or rifle, and sword. Guard regiments have in addition a lance with scarlet pennon.

Field and Fortress Artillery.—One battalion of horse artillery and three brigades of field and mountain artillery are attached to each of the first five ordus. Each brigade consists of two regiments and each regiment of two battalions. Each battalion consists of three batteries. Each battery has six guns on war establishment. A field battery on a war footing comprises 137 of all ranks, including four officers and twenty-two non-commissioned officers, with 100 horses. The peace establishments are usually very low.

The fortress artillery is partly attached to the ordus.

but partly comes under the Ordnance Department. Of the 105 companies, the Ordnance Department takes the larger share, and disposes of it chiefly in the Bosphorus and Dardanelles batteries, and among the Mediterranean fortresses.

Artillery Armament includes the 7·5 cm. Krupp gun and the 8·7 cm. Krupp gun.

Engineers.—The Engineers are organized partly by ordus, partly under the Ordnance Department. Each man carries an intrenching tool. The company establishment is about 200.

The *Medical Service* is incomplete, especially in bearer companies and field hospitals. The same remark applies to the *Supply Service*, which in war depends largely on requisitioned transport. The first five ordus have each three train squadrons or companies.

Reserves.

The Redif or Landwehr Infantry, though second line troops, are often embodied and sent out of their districts. In the list given above of troops employed in the late war with Greece, it will be observed that a far larger proportion of the Landwehr battalions than of the army battalions was employed, which seems to point to a low state of organization in the Regular Army.

Battalions of the Redif are often 1200 strong. Armament, etc., as in the regular infantry.

The Hamidieh or Militia Cavalry is organized under tribal leaders, together with officers of the Regular Army.

General.

Men are plentiful. Officers are deficient in numbers. Infantry are the most rapidly mobilized. Horses are few.

Railways and good roads are few. The spirit of the troops is excellent. The Turk is a fighter by disposition when he is roused, and by religion.

Colour of Uniform and distinguishing Marks.—Infantry, dark blue tunic and trousers. *Cavalry*, dark blue tunic and grey pantaloons. *Field Artillery*, dark blue tunic and grey pantaloons. Officers' tunics in the infantry have a deep cuff of red cloth. The head-dress of infantry is the fez.

A field-marshal has three stars on the epaulettes. A lieutenant-general has two. A major-general has one. Medical officers have a serpent on the shoulder-strap.

Budget.—The receipts for 1897-98 are estimated at £18,511,323; the expenditure at £18,429,411. Of this expenditure the *War Budget*, including the gendarmerie, takes £5,965,819, or about 32 per cent. But the financial mismanagement, which would seriously hamper the Turks in a great war, continues, and the Budget is largely a paper one, an ideal without reality.

THE UNITED STATES ARMY

Population (including 7,640,000 coloured men) 68,000,000

In consequence of recent events attention all over the world has been attracted to the navy, and, to a less extent, the army of the United States. In the words of Mr. Choate, the new American Ambassador in England, "Brother Jonathan (*your* brother Jonathan, he calls him) has started out to see the world," and, in language which is not exaggerated, *our* eloquent brother speaks of his countrymen as donning their 700 league boots, and planting their footsteps on the isles of the sea, striding across the world. Such a stride was made the other day, when 2000 American marines landed in Malta on their way to the Philippines.

Great has been the enthusiasm between the two sections of the English-speaking race. It has seemed that the dream of the past twenty years may be accomplished, and the mischievous rent caused by the narrow-minded policy of George III and his ministers may be mended.

I may be excused for one moment if I pause here to add a third figure to the picture. The Emperor of Germany is a many-sided man, whom our slow island wits can hardly appreciate, yet many must have been struck by the Kaiser's sympathetic telegram to Mrs. Rudyard Kipling, with its notable reference to "our

common race." It is true enough that Germans make very good Englishmen, being indeed of the same original stock, yet who would have supposed even a few months ago that the Kaiser would ever have allowed such a thought to lodge in his mind?

There has been no discordant note in these congratulations, scarcely a note of warning, though the Ambassador is cautious amid all his tactful eloquence. Alliance is not likely. Each country will after all consider her own interests first. This is the underlying thought in his speech. These are electric times. The resentment of yesterday is the passionate love of to-day. In our secret hearts we have always had some love for those who speak our common language over the way, and we may hope that the old adage may continue to prove true, that the quarrels of lovers may still prove the renewing of love. One danger has been noticed, with usual bluntness: One who has done more perhaps for his country than any other, with a possible exception, now living, the present Prime Minister, a man of vast experience, of certain patriotism, has hinted at this risk—that other states may look upon this union of the English-speaking peoples with suspicion—Rome is against the World. Very well, the World will be against Rome.

In the modern sense the army of the United States can scarcely yet be said to exist, though it was more than sufficient for the forces of Spain. Since the war there has been much painful discussion of incapacity in high places, an incapacity which, it is alleged, was one of the main causes of the grievous loss of life from sickness which so enormously outweighed the loss from Spanish bullets. In the American-Spanish War the losses are given as follows:—

Killed in action	329
Died from wounds	125
Died of disease	5,277
Total	5,731

The losses in the continued Philippine war have yet to be estimated, but the proportions will perhaps be much the same.

Yet it may be doubted whether, on the whole, the defects in commissariat, in lack of hospital accommodation and medical assistance and comforts, even in general direction and administration, were greater than might have been expected when an improvised army is called upon to take the field in a pestilential climate. France, with one of the most famous armies and fleets in the world, did no better in Madagascar. England did no better in the Crimea. It has always seemed hardly credible to the present writer that the heads of supply departments, and so forth, should be exceptionally unpatriotic and murderously greedy persons. It is possible that defects are more widely distributed, and are largely due to circumstances, to gradual neglect on all sides due to long peace, to economics forced upon heads of departments, to subterfuges almost universal—that in the case of such disasters it is, in fact, the nation rather than the individual which should be the scapegoat of its own heedlessness.

Command.—The President of the United States is commander of the national forces, and declares war. He must, however, receive the authority of Congress in order to carry his declaration into effect by permission to use the land and naval forces of the Republic, and this was done before hostilities commenced between the States and Spain. In the late war there was no actual "declaration" on either side. Such declarations appear to be now

unusual. Diplomatic relations are broken off, or some act of war takes place, and hostilities commence. There is a Secretary for War, chosen by the President, and holding office during his pleasure, but whose appointment is confirmed by the Senate. Command and discipline are under a military officer.

Service in the army is for five years, with power to re-engage.

Peace strength of the Army is limited by Acts of Congress to 2147 officers and 25,710 men. The actual peace strength is much as follows:—

	Officers	Men	Horses	Horsed-guns
Infantry . . .	910	12,871		
Cavalry . . .	447	6,010	6,006	
Artillery . . .	290	3,939	3,673	40
Engineers . . .	118	495		
Signalling Corps . .	10	49		
Total . .	1775	23,364	9,679	40

It is proposed to raise the peace strength to 100,000, enabling garrisons to be placed in Porto Rico, Cuba, and the Philippines. For the Philippines use is at present being made of marines.

War strength is not shown. As evidenced in the late war, Militia and Volunteers vastly swell the numbers given above. It is said that 100,000 Volunteers fought against Spain, and they proved their courage and soldierly qualities in many a gallant action.

The Regular Army is organized as follows:—Infantry, twenty-five regiments of eight companies. Cavalry, ten regiments of ten troops or half squadrons. Artillery, five regiments of twelve batteries. Engineers, one battalion of five companies. One signalling corps.

Alterations are, however, in progress. A three battalion infantry organization is proposed, and a reduction of the eight weak army corps to four. Headquarters of the present corps are at New York, Chicago, St. Paul, Denver, Vancouver Barracks, San Francisco, San Antonio, Omaha.

Reserves.—United States citizens between eighteen and forty-five are liable to service. The actual reserves consist of an organized militia and an unorganized militia. The organized militia numbers some 9300 officers and 106,251 men, but it is probable that not more than one-tenth of these have received any efficient military training. The unorganized militia, 10,149,000 men, appears to be another name for citizens liable to be called out for war; its value for war purposes on the outbreak of hostilities is probably slight.

Budget.—Revenue, 1897-8, £84,273,000. Expenditure, 1897-8, £92,369,000. Debt in 1897, £373,681,000. Estimated *Army Budget* for 1898-9, £9,200,000. It is probable, however, that this expenditure will be actually largely exceeded.

Military pensions have now reached the scandalous amount of £29,000,000; in regard to which Von Löbell cynically remarks:—"As the granting of such pensions to disabled soldiers, or to their so-called relatives, serves as a means of political agitation in the purchase of votes, there is a prospect of a further rise,"—a prospect, we may add, which will become ominous should the system be extended to those who have suffered by the present war.

APPENDIX

The Peace Conference.

June 28.—According to to-day's reports, the proposals for the limitation of armies and military expenditure embodied in Count Muravieff's circular, have been unanimously rejected by all the Powers. Thus the Conference has failed, as it was certain to fail.

Increase in the Army of the United States.

In conjunction with the above, it is of interest to note that on the same day the sanction of the President of the United States was given, so it is announced, to the proposed increase of the army to 100,000. Of these perhaps 30,000 may be required for the conquest of the Philippines—a doubtful undertaking in policy.

ENGLAND.

This Year's Military Works Bill.

In pursuance of the policy of former years, a sum of £4,000,000 was asked for by the Under-Secretary for War on Wednesday, June 21, to be expended as follows :—

Fortifying harbours of defence and refuge	£1,000,000
Permanent barracks on Salisbury Plain	1,600,000
Buildings for depôts of regiments to which new battalions have been added	160,000
Barracks—chiefly for garrison artillery	70,000
Additions to barracks	90,000
Improvement of barracks	170,000
To advance works in hand at Aldershot, Colchester, and the Curragh	230,000
Gibraltar—mainly on hospitals	50,000
Malta—largely „ „	120,000
Halifax	40,000
Bermuda, Mauritius, Jamaica, and St. Helena	90,000
Wei-Hai-Wei	130,000
Transport	20,000
Volunteer rifle ranges	40,000
Staff and contingencies	190,000
	£4,000,000

In explaining the Bill, Mr. Wyndham called attention to improvements in barrack accommodation, and the gradual disappearance of the "death traps" of the past: an expression not too strong, as those acquainted with Dublin and several other barracks some years ago will admit.

Exception was taken by Lord Charles Beresford to the retrograde policy of refuge harbours. Naval men and unofficial critics will probably consider that the £1,000,000 to be so spent had better have gone to the Navy. The expenditure seems to incline towards "the policy of satisfying the old women of both sexes," according to Lord Hood's famous phrase, which wasted its substance upon Martello towers, etc.

Affairs in the Transvaal.

War must come if President Kruger does not give way. The policy of pin-pricks cannot last for ever. Mrs. Cronwright Schreiner would have us still wait, but we have waited long enough. Even the bruised leviathan will turn. With doubtful taste, and more than usual inaccuracy and impolicy, the famous Anglo-German authoress's booklet has been assailed here and there as the work of a Dutch woman. It might have been remembered that, besides her own distinction, the lady is sister to the Prime Minister of the Cape, and that, though her methods seem impracticable, she is sincerely desirous to allay race feeling. If war happens, it is said that Sir Redvers Buller will be in command. The British regular troops in South Africa are named on page 276.

Compulsory Militia Service.

The Secretary for War has just given the country a disagreeable reminder, that unless men are forthcoming for the militia, conscription can be enforced. With wages high, and extraordinary demands on this force to keep up the army, recruiting for the militia has fallen very low. No doubt enforced militia service would be very unpopular, and might bring about the fall of even a strong Government.

FRANCE.

Captain Dreyfus has returned. Nothing new can be said in this connection, yet perhaps it should be noticed that if Dreyfus is guilty, extraordinary negligence is evident in high quarters, and if Dreyfus is innocent, a miserable degeneration in morals; unless, indeed, it is expedient that one man should die for the—army.

THE END

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